

GOVERNMENT OF INDIA  
DEPARTMENT OF ARCHAEOLOGY  
CENTRAL ARCHÆOLOGICAL  
LIBRARY

CALL No. 720.5/J.R.I.B.A.  
ACC. No. 31542

D.G.A. 79  
GIPN-S4-2D G. Arch. N. D. 56.-25.9.58-1,00,000









THE ARCHITECTURAL JOURNAL  
BEING THE JOURNAL OF THE ROYAL  
INSTITUTE OF BRITISH ARCHITECTS

VOLUME XXXVII--THIRD SERIES



(78)





not, however, be unmindful of the interests of those of its members in private practice who are equally entitled to all the privileges, the protection and support which the Institute can give them. But the greater and wiser policy of the Institute must ever be directed, with equal consideration and honour to all members, so that the best interests of the Art of Architecture in this country may be served.

"To this end it is recommended that the Government be approached in order that the matter may be considered, not as affecting the interests of private architects or official architects, but as influencing the advancement of Architecture. Such an Inquiry, conducted with a full sense of the importance of the larger issue, may not only find a solution to the immediate question with the Government, but will in all probability bring about a closer relationship between the Government and the Royal Institute which may lead to the establishment of continuity of policy in future."

I think the Council will agree that the result of such a discussion would be bound to influence Public Authorities throughout this country and also in the Overseas Dominions of the Empire.

#### (g) *Architectural Education.*

I invite your attention to two important steps in connection with architectural education which have been taken by the Council since the last Inaugural Address :—(i) The Endowment of the Rome Scholarship, and (ii) The foundation of the R.I.B.A. Athens Bursary.

I have heard it whispered that some of the younger men think that it is a waste of time to go to Athens and Rome to study the architecture of the past, that an architect has nothing to learn there, and that the less he knows about ancient art the more unhampered will be his own development. It seems to me that an open mind is likely to prove to be an empty mind, and that without knowledge of the past an architect is poorly equipped for the present. I also hear that this movement has even taken the form of advising young men not to trouble about the Soane and the Tate prizes, which give a man a tour in Italy or France, but to treat them as altogether valueless.

I hope that I have been misinformed, and I cannot imagine any responsible teacher of our great art giving advice of such a nature. Let me here remind you that our great architects have always been students of the productions of the past and also travellers in other countries. They have absorbed the ideas of other men and other ages and have passed them through the crucible of their own mentality and, thus equipped, they have produced their own individual work. Are we to-day so puny that we should fear to cramp our style by study, and be overpowered by knowledge? Surely we cannot afford to give up the accumulated knowledge of the art-forms of past ages, for a study of them should enable us to deal more easily and with more confidence with present-day problems.

Tradition in art cannot be lightly disregarded. Tradition is our rock-foundation and an architect who replaces it simply by his own self-sufficiency is building his house upon the sand.

#### (h) *The Greater London Regional Planning Committee.*

The Town Planning Acts have provided for the regulation of the lay-out of large areas of land in the interests of public health, and should be responsible for a great improvement in housing conditions and in the general health of the people, which is so much affected by environment. Co-ordination, however, to regulate future regional planning, is most important, and the formation by Mr. Neville Chamberlain of the Greater London Regional Planning Committee was a most valuable step in the right direction. The Committee has been fortunate in having as its secretary Mr. Montagu Harris, O.B.E., who is not only a distinguished civil servant, but is also fully conversant with town-planning problems, having been President of the Town Planning Institute in the year 1927-28.

The Greater London Committee has appointed several sub-committees—(a) General Purposes, (b) Decentralisation, (c) Open Spaces, (d) Traffic, and these sub-committees are collecting reliable information for our use in the future. It has as chief technical adviser, Dr. Raymond Unwin, F.R.I.B.A., an acknowledged authority on town planning. Other experts who are advising the Committee are :—Prof. S. D. Adahead,



F.R.I.B.A., Mr. W. R. Davidge, F.R.I.B.A., F.S.I., Mr. Longstreth Thompson, F.S.I., and Mr. Frank W. Hunt, F.S.I. Dr. Unwin has in hand the preparation of a town-planning scheme for Greater London, showing what is necessary in the way of arterial roads, bridges, and open spaces as a guide for the control of future development. This will be a work of great magnitude, as Greater London includes an area of about 2,000 square miles, extending on the north as far as Harpenden and Welwyn; on the east as far as Billericay, Wickford, and Gravesend; on the south as far as Dorking, Reigate, and Redhill; and on the west as far as Slough, Beaconsfield, and Amersham.

The Greater London Committee is also taking up vigorously the consideration of "Ribbon Development" and other matters of extreme importance in the amenities of the country side.

I feel confident that in order to make Regional Planning effective it will be necessary to extend its provisions so as to include already built-up areas, while a comprehensive scheme of town-planning for Greater London, in place of piecemeal efforts, should be of material assistance to its proper development.

### 3. BUILDINGS OF THE YEAR.

It is very pleasant to refer to the number of fine buildings which have been brought to completion by our members during the past year, as these indicate not only the prosperous condition of architecture at the present time but also the undoubted fact that never has better architectural talent been available for carrying out the various types of building required for public and social service under our complex civilisation, when so many factors such as noise, acoustics and vibration have to be considered. Complexity of existing conditions is the kernel of the problem of the difficulties in building to-day.

I may divide these types of building as follows:—

#### (a) Town Halls and other Municipal Buildings.

Municipal Buildings, Dudley, by W. Alexander Harvey and H. Graham Wicks [F. and A.]; Nottingham Council House and Exchange Buildings, by T. Cecil Howitt [A.]; Bournemouth Pavilion, by Horne and Knight [A.A.]; the Spitalfields Market, by Sydney Perks [F.]; Police Station at Bristol, by Ivor Jones [A.]; and Percy Thomas [F.]; Public Baths and Wash-houses, Greenwich, by Horth and Andrews [FF.]; L.C.C. Weights and Measures Office, Endsleigh Gardens, N.W., by G. Topham Forrest [F.];

#### (b) Banks.

Martins Bank, Maidstone, by Darcy Braddell [F.] and Humphrey Deane; Lloyds Bank, Dartford, Kent, by Edward Maufe [F.]; National Provincial Bank, Cardiff Dock Branch, by E. C. R. Palmer and W. F. C. Holden [FF.]; Midland Bank, Champside, partly completed, by Gotch and Saunders [FF.], and Sir Edwin Lutyens, R.A. [F.], associated architects.

#### (c) Libraries, Art Galleries and Museums.

Public Library, York, by Brierley and Rutherford [FF.]; Williamson Art Gallery and Museum, Birkenshead, by Hamuaford and Thearle [A.A.]; the Holker Law Library, Gray's Inn, by Sir Edwin Cooper [F.].

#### (d) Educational Establishments.

Rhodes House, Oxford, by Sir Herbert Baker, A.R.A. [F.]; Highgate School Science Buildings, by Alan E. Munby [F.]; Wyggeston Grammar School for Girls, Leicester, by Symington and Prince [A. and L.]; Christ's Hospital, Hertford, Science Buildings, by Sydney Tatchell [F.]; Sutton Valence School Chapel, Maidstone, by Adams, Holden and Pearson [FF.]; Cranleigh School New Buildings, by Sir Edwin Cooper [F.]; School for Tropical Medicine, Gower Street, W.C., by P. Morley Horder and Verner O. Rees [F.]; Stowe School Chapel, Bucks, by Sir Robert Lorimer, A.R.A. [F.], and John F. Matthew; Armstrong College Mining Block, Newcastle, by A. Dunbar Smith [F.].

#### (e) Hospitals.

The Deal and Walmer War Memorial Hospital, by Percy Adams, Holden and Pearson [FF.]; Hospital, Davyholme, by Elcock and Sutcliffe [FF.]; Seaman's Hospital, Greenwich—School of Pathology and Nurses' Home, by Sir Edwin Cooper [F.]; Middlessex Hospital, West Wing, by Alner W. Hall [F.].

#### (f) Theatres and Cinemas.

The Alhambra Cinema, Moseley Road, Walsall, Birmingham, by Satchwell and Roberts; the Empire Theatre, Southampton, by Wm. and T. R. Milburn, [FF.]; the Davis Theatre, Craydon, by Robert Cromie [F.]; Empire Cinema, Leicester Square, W., by Frank Matcham and Co. and Thos. W. Lamb, associated architects; Cinema, Richmond Road, Twickenham, by Leathart and Granger [FF.].

#### (g) Churches.

Church of St. Joan of Arc, Farnham, by C. Nicholas and J. E. Dixon-Spain [FF.], in association with H. Falkner and G. M. Aylwin [FF.]; Kelham Chapel, Newark-on-Trent, by Currey and Thompson [FF.]; the Free Church Hall, Welwyn, by Louis de Soissons and A. W. Kenyon [FF.]; Church at Hove, Sussex, by E. P. Warren [F.]; Paisley Abbey Restoration, by Sir Robert Lorimer, A.R.A. [F.].

#### (h) Town Planning and Housing Schemes.

Larkhall Rise Flats, Clapham, by Louis de Soissons and G. C. Wornum [FF.]; Princes Gate Court, Kensington, by T. P. Bennett [F.] and Son; William Booth Memorial Buildings, Denmark Hill, by Sir Giles Gilbert Scott, R.A. [F.], and Gordon and Viner, associated architects.



(i) *Office Buildings.*

New Offices, Billingham, for Imperial Chemical Industries, Ltd., by L. H. Bucknell [A.]; Imperial Chemical House, London, by Sir Frank Barnes and Alfred Cox [FF.], associated architects; National Radiator Building, Argyll and Great Marlborough Streets, by Gordon Jeeves [A.], and Raymond Hood, associated architects; Laboratories at Winnington, Northwich, Cheshire, for Brunner, Mond and Co., Ltd., by L. H. Bucknell [A.]; Metropolitan District Railway Offices, Broadway, Westminster, by Adams, Holden and Pearson, [FF.]; Entrance Loggia, Selfridge's Stores, by Graham, Anderson, Probst and White, Sir John Burnet [F.], and Partners; Fortnum and Mason's Stores, Piccadilly, by Wimpey, Simpson and Guthrie [FF.]; River Plate House, South Place, E.C., by Messrs. Joseph [A.]; Sun Life Assurance of Canada, Cockspur Street, S.W., by Septimus Warwick [F.]; Vinty House, Southwark Bridge, E.C., by Kersey, Gale and Spooner [FF.].

(j) *Railway Stations and Garages.*

Exmouth Railway Station, by J. R. Scott, Architect to the Southern Railway; the Lex Garage, Little Pulteney Street, W.1, by R. Sharp [L.] in conjunction with J. J. Joass [F.]; Omnibus Garage, Leicester, by W. H. and H. G. Riley [F. & A.].

(k) *Factories.*

The Firestone Tyre Factory, Great West Road, Middlesex, by Wallis, Gilbert and Partners [FF.]; Carreras Factory, Hampstead Road, N.W., by M. E. and H. O. Collins [F. & A.].

(l) *Post Office Buildings and Telephone Exchanges.*

Telephone Exchange, Sheffield, H.M.O.W., Sir R. J. Allison, Chief Architect [F.]; Post Office at Mitcham, H.M.O.W., A. Scott [A.]; Post Office, Bath, H.M.O.W., Sir R. J. Allison, [F.].

(m) *Miscellaneous.*

The Royal Horticultural Hall, by Easton and Robertson [F.]; North East Coast Exhibition, Newcastle-upon-Tyne, by W. and T. R. Milburn [FF.]; War Memorial, Trinity College, Dublin, by Sir Thomas Mundy Deane; Lincoln's Inn Old Hall Restoration, by Sir John W. Simpson [P.P.R.I.B.A.]; Heston Air Park and Aerodrome, by L. M. Austin [A.]; Masonic Hall, Birmingham, R. Savage [F.]; Masonic Hall, Manchester, Dr. P. S. Worthington [F.].

It is of course often unfortunate that when new buildings have to be erected, old ones, sometimes of real artistic value, should have to be demolished, and in the case of Dorchester House, in Park Lane, it causes a pang of regret that this fine, stately mansion, designed by Lewis Vulliamy and adorned by that great sculptor Alfred Stevens, should have been taken from us. It is, however, the inevitable result of expansion that when a building has ceased to serve a useful purpose it is always liable to be

superseded. It is the old, old story of "new lamps for old," and the old were often beautifully mellow and attractive.

## 4. BRIDGES.

In reviewing the building proposals of the past year, Bridges loom largely in our minds; first because the old ones will often no longer stand the strain of modern traffic; and secondly because new ones are required to meet the increased flow and weight of traffic to-day. Since the time of the Romans bridges have always been recognised as important factors in the spread of human intercourse. In mediæval times they were often semi-religious in character, and old London Bridge itself was started by a religious fraternity of the "Fratres Pontis." When we speak of bridges our thoughts inevitably turn to that bridge at Avignon so famous in song. It was built in the same way by a sacred guild of bridge builders, and like many others had a midway chapel which indicated its sacred character as consecrated to intercourse between towns and peoples. This continuous tradition of the great importance of bridges should make us feel a serious sense of responsibility for the care of old bridges and the building of new ones. It is satisfactory to record that this responsibility is being recognized throughout England. Thus the fine mediæval bridge at Wansford is now relieved of the heavy traffic on the Great North Road by a new bridge alongside, while the famous Clopton Bridge at Stratford-on-Avon will be similarly preserved by a new auxiliary bridge.

The architectural importance of the London bridges bears such an intimate relation to the development of London at the present time that I propose to refer shortly to the projects for bridges which have been and are now under consideration, and have given rise to so much public interest.

(a) *St. Paul's Bridge*, about which there has been so much intermittent discussion for the past 18 years, has now been vetoed by Parliament. It was a badly conceived project and the worst cross-river scheme ever formulated, for it would have endangered the stability of St. Paul's, and by attracting more traffic to an already busy and congested centre, would have ruined the amenities of our great metropolitan Cathedral, and in the supposed interests of traffic, would have defeated the very



purpose for which it was designed. So much for the defeat of a new Bridge. Now we come to the threat to an old Bridge.

(b) *Waterloo Bridge*.—It is a great relief to lovers of London and of fine majestic architecture to know that Waterloo Bridge is to be strengthened and repaired and not demolished, and so will still remain as London's finest bridge. The L.C.C. are to be highly congratulated on their decision.

Regarding these two Bridges, it has been necessary to keep a constant and vigilant watch on the city scheme in the East and on the L.C.C. proposals in the West, lest we should have a ruined Cathedral at one end of London and a ruined bridge at the other. Both St. Paul's Cathedral and Waterloo Bridge seem now to be anchored in safety. Thus we see that we have not only been taking action for the Preservation of Rural England, but also we have been keeping a watchful eye for the protection of the monuments of the capital city.

(c) *Charing Cross Bridge*.—The greatest architectural event of the year, however, and, indeed, one of Imperial importance, is the decision to provide a new road bridge at Charing Cross. It has been the dream of many people for many years that such a bridge should be constructed, and one cannot but rejoice that this much-needed public improvement for the Metropolis will at length be taken in hand.

It is, of course, of the greatest importance that the best scheme should be adopted after all suggestions have been exhaustively considered, and the final decision should be the result of consultation and agreement between all those who have a right to be heard.

Among the authorities who might be presumed to be interested in the subject and to have a right to express an opinion, is the Greater London Regional Planning Committee, of which I happen to be Chairman and of which Dr. Raymond Unwin, F.R.I.B.A., is the Chief Technical Adviser. Another body is the Town Planning Institute, and yet another is the important Committee, convened by the R.I.B.A., known as the Thames Bridges Conference, of which Mr. Arthur Keen is the Chairman.

The official scheme which the London County Council have drawn up in collaboration with the railway company and Sir Edwin Lutyens is certain

to be met with many and serious objections. This official scheme proposes a high level bridge occupying the site of the present railway bridge and reaching ground level at the Strand, where an awkward traffic circus would be formed, while at the junction of Waterloo Road and the approach road another circus is proposed. The official bridge with its approaches has, as one of its unfortunate features, a great length without any intermediate exits or entrances from the ground level, which would thus cause a great congestion of traffic at the points where it is discharged. Another bad feature is the length of main road tunnelling, with objectionable overhead viaducts; thus Belvedere Road, it has been stated, would be tunnelled for 600 feet, Waterloo Road for 420 feet, and York Road for 300 feet. I know of no such system of unsightly tunnelled and overhead viaducts in existence in the very centre of any European capital city. The scheme also necessitates the destruction of much valuable property such as St. Martin's Vicarage and schools, the "Old Vic" theatre, Courts's Bank, the India Store Depot and the Union Jack Club and would, therefore, be very costly.

After considering this official scheme the Greater London Regional Planning Committee passed a resolution at a meeting held 30 July, 1929, condemning the scheme for various reasons, as follows:—

"1. The chief object of a bridge at Charing Cross should be to deal with the traffic between the area south of the river and the west and north-west of London. The scheme put forward by the London County Council and Ministry of Transport, far from facilitating this traffic, distorts it in an attempt to serve the north and south traffic which would not naturally use Charing Cross Bridge.

"2. The natural flow from the bridge to the north-west will be seriously interfered with by the proposed disconnection of Charing Cross Bridge from Northumberland Avenue, Trafalgar Square and the Embankment." (The official scheme requires all Embankment traffic to go up to the Strand before it can get on to the new Bridge.) "Vehicles going to Westminster and Piccadilly would not only be diverted from their natural course but forced to use the already congested centre at the Strand.



"3. The creation of a new Circus at the Strand so near to the present Trafalgar Square Circus will cause serious delay to traffic, besides being a costly matter owing to the demolition of valuable buildings.

"4. That as regards the characteristic views of London, including the view of St. Paul's from the Embankment and Westminster, the raising of the bridge by means of tunnelled viaducts and underground streets above the level necessary to cross the Embankment traffic will be detrimental and will tend to destroy the view and to be out of scale with the remaining features.

"5. The existence of the overhead railway from London Bridge to Charing Cross presents the chief obstacle to the proper development of London south of the river. The removal of this obstacle probably by placing the railway underground will ultimately become necessary. Anything which would render this removal more difficult or costly is to be deprecated."

This criticism has also been endorsed by town-planning and other authorities. We have only to remember that simplicity is the acid test of design, and if we apply this test to the official scheme for Charing Cross Bridge, we find that its many complications are the measure of its imperfections.

Of all the schemes which have been published and are worthy of consideration I would refer to two only. One is that of the late Edwin T. Hall, F.R.I.B.A., published in the R.I.B.A. JOURNAL in December, 1916. It is a simple, straightforward plan for a low-level bridge abutting on to a wide open square, some three acres in extent, at the Victoria Embankment end and communicating directly with the Embankment and Northumberland Avenue between which and Villiers Street there would be room for fine monumental buildings, while a widened Villiers Avenue would lead to the Strand. Mr. Hall's treatment of the Surrey side consists in joining up the Southern Station and Hotel while allowing the River Embankment to be continued under the Station Yard.

The other scheme is by Messrs. Niven, Caröe and Muirhead and is to a certain extent similar, but with improvements, such as the carrying of a bridge over the Victoria Embankment, which would be lowered at this point so as to pass under the bridge, thus giving additional traffic facilities.

This scheme provides for the easy distribution of traffic; there are no costly and insanitary approach viaducts on either side of the river, and less property to be acquired, for it would leave Coutts's Bank, the Union Jack Club and other buildings as they are and should, it has been stated, cost some three millions less than the official scheme. The Embankment roadway on the south side would also be preserved, and, if extended, would be suitable for monumental buildings on the lines of the London County Hall and St. Thomas's Hospital.

I am of opinion that a scheme on these lines will prove to be the solution of this difficult problem.

I agree with Mr. Arthur Keen, Chairman of the Thames Bridges Conference, that taking the northern approach, it is most desirable to have a low-level bridge with approaches to Northumberland Avenue and the Victoria Embankment—that is to say, a bridge which serves both banks right down to the water's edge, with the Victoria Embankment raised and lowered so as to allow traffic to get on to the bridge or pass under it at will, and be easily distributed.

As to the southern approach, the important thing is to enable the future development of South London from Westminster Bridge to Blackfriars to be properly carried out, and not to put the station in such a position as to block up the open space from Waterloo to the river. This could be avoided by placing the new railway station in its most suitable position adjoining Waterloo Station, and the Hotel in its proper place facing the river, with an underground connecting space, like that at Piccadilly Circus, to give access from Station to Hotel—an arrangement which would allow the streets to run through without interruption and the development begun on the south side by the County Hall to proceed eastwards.

What we have to deal with in the next few years is essentially the greatest public improvement that has been undertaken in London since the Great Fire. It is not only the question of a new bridge; it is more even than the question of planning the approaches to the bridge. It is, in fact, the problem of the development of the central portion of the Surrey side. We shall make or mar that development for all time by the decision which we take on the bridge. The interest of the general public has



been keenly directed towards the matter, and all those who care for the welfare of London are greatly indebted to those responsible organs of the Press which have done so much to voice opinion on the subject and to urge the public authorities in the right direction.

The magnitude of the scheme and the complexities it involves in the matter of town planning—on both sides of the river—render the problem of this bridge and its necessary approaches very difficult to visualise even by experts.

I am therefore strongly of opinion that, before anything further is done, a scale model of the whole scheme, showing the approaches on both sides of the river, should be made, and that a full discussion should take place on it between H.M. Government, the London County Council, the Ministry of Transport, the Greater London Regional Planning Committee, the Thames Bridges Conference and the Royal Fine Art Commission. A public competition should then be held to secure and co-ordinate all the best ideas.

Even from the point of view of the amount of money involved, which is £12,000,000 and upwards, it is evident that mature consideration should be given to the problem in order to ensure that the very best scheme should be selected, and I await with confidence the decision of the various authorities, including His Majesty's Government, who have agreed to provide 75 per cent. of the cost.

Criticism is not only easy and inevitable, but, indeed, absolutely essential, and of enormous value in considering an undertaking of such exceptional importance. Whatever we may think of the scheme itself, in its present tentative form, we cannot but remember that it is largely owing to the public spirit and courage of the London County Council, generously supported by the Minister of Transport and H.M. Government, that this gigantic undertaking ever came into the realm of practical affairs. We cannot blame either Minister or Council for our English habit of doing our improvements piecemeal without first making a general plan.

We have the Chairman of the London County Council, Lord Monk Bretton, here with us this evening, and we are glad to take this opportunity of tendering our grateful thanks to him and to those working with him, notably Sir Percy Simmons, for the bold and public-spirited way in

which this great civic enterprise has been handled and brought into its present promising position.

It is wonderful to realise that at last we are in sight of the actual accomplishment of this great improvement, and that the present railway monstrosity will be removed for ever from our midst. I hope that, in the public interest, the best advice will be sought for and followed and that, if necessary, there will be a public competition for the complete scheme. The bridge and its approaches which will occupy one of the finest sites in London, should be a great and magnificent conception, worthy of its central position in the capital of the Empire.

### 5. ACTIVITIES OF THE R.I.B.A.

It is well from time to time to recall the many and varied activities of the Royal Institute.

Just as the foundations of any building are of the greatest importance, so are the foundations of an institution, and when we read our Royal Charter granted by William IV we must realise that our foundation has provided a good base for the superstructure which we have raised upon it. Our Charter sets forth that architecture is esteemed and encouraged in all enlightened nations, as tending greatly to promote the domestic convenience of citizens and the public improvement and embellishment of cities, and we received our Charter because we were associated together for the general advancement of civil architecture and for promoting and facilitating the acquirement of the knowledge of the various arts and sciences connected therewith.

The R.I.B.A. and the principles for which it stands are of value not only to its individual members but also to the community at large, and this is not always fully realised. One has only to consider its multifarious work to appreciate how many-sided are its activities. The four Standing Committees—Art, Literature, Practice, and Science—deal with all aspects of the profession; the Library is the finest of its kind in the world; in addition to which we have the JOURNAL, the Kalendar, Exhibitions, visits, lectures and debates, conferences, social functions, the organisation for assisting architects to travel about the world, the collection and distribution of information, the maintenance of the Scale of Charges, the control and improvement of the Competition system—better managed here than



in any other country—and, perhaps most important of all, the vast and varied work of the Board of Architectural Education.

We must not forget that architects are doing good service by giving professional advice in an honorary capacity in their own districts where changes are under the consideration of local authorities; while a great deal of important work for the community is done by architects as a matter of public duty.

I think much good can be done by architects becoming members of Town Councils, as they can thus help to direct movements beneficial to their districts. I know full well that much time is wasted on committees, and it is not congenial work, but it is much more effective than writing letters to the newspapers after a wrong decision has been made.

The work of the Society for the Protection of Ancient Buildings has always depended greatly upon the services of enthusiastic members of the profession. The establishment of the Council for the Preservation of Rural England was in the main the work of members and honorary members of the R.I.B.A., such as the Earl of Crawford and Balcarres, Mr. E. Guy Dawber (Past President), and Professor Patrick Abercrombie, and that body freely acknowledges the debt that it owes to the profession.

There has been an important development recently in the appointment of Advisory Panels consisting largely of architects appointed by the Allied Societies to give free help and advice in all matters affecting the amenities of the country-side. The work of these Panels is not yet sufficiently known, but when the community is fully aware of their work we shall hope to see great results from a proper use of them.

Architects in their own neighbourhood hold an unofficial watching brief for the protection of England's architectural monuments—large and small. We, who have the trained eye for beauty of form, must regard ourselves as trustees for the countless fine buildings which form our heritage from past ages. England is throughout its length and breadth a veritable treasure house of architectural gems, which are found alike in little villages and in great towns—buildings which have not only their own intrinsic worth but also their historical associations which must be preserved by those of us who understand their value.

In connection with Greater London I should like to see more interest in its development by wealthy citizens. When I think of Nottingham, Leeds, Bristol, Birmingham, Liverpool and Manchester, and realise what their citizens have done by giving vast sums for general improvements to these towns, I think we are justified in hoping that more and more of our wealthier citizens, not only of the City of London but also of Greater London, will take a wider view of their responsibilities for the architectural improvement and general amenities of this vast area of 2,000 square miles.

The importance of environment is the new note which has been sounded to-day in connection with every public undertaking, whether national or local, and both in town and country we must preserve beauty and we must provide beauty in all our surroundings. At last it is recognised that beauty of environment is an essential factor in raising the status and improving the health of our people. In other words we now realise that we cannot raise an A1 race in C3 surroundings.

As architecture comes striding down the ages, we can discern the progressive spirit which animates her, for she has always developed a new phase in each period to meet new requirements, and a clear indication of social progress is to be seen in the progressive adaptation of architecture to each successive period of human history. In ancient days the demand on her was chiefly for temples, tombs and theatres and it has been said that Athenians would seem to have been content to live in hovels if only they could gaze on the glory of the Temple of their goddess on the Acropolis. The outstanding buildings in old Rome were the Forum and Basilica for business and social life. Then in England came castles for defence, round which the common people clustered. The Mediaeval masons built great cathedrals which became centres for every sort of civic life, together with parish churches for prayer and worship and memorials of the dead. In Renaissance times great architects designed great country houses and mansions for the nobility. Then came the Queen Anne and Georgian houses for the gentry in the towns. But to-day is the people's day, the day of communal organisation, as at Letchworth and Welwyn Garden City, of town planning in new districts and of building schemes round every town to supply fit and proper homes for the people and their own social needs.



Here then are the latest demands made upon architecture: here is the new opportunity for architects of to-day. They are called upon to design not only all the variety of buildings for social service and recreation but also to provide a new and more enlightened people with pleasing homes in pleasant environment.

In conclusion, I would remind you of our far-reaching responsibilities, for we form a great con-

federation of British Architects, with ramifications in all parts of the British Empire. Everywhere, whether in Great Britain or the Overseas Dominions, our members, of the Institute and of the Allied Societies, strive to design buildings suitable to existing requirements and also to endow their work with permanent artistic value. Thus do we endeavour to act up to our fine old heraldic motto, *Usui Civium Decorum Urbium*.

## Vote of Thanks to the President

The RT. HON. LORD MONK BRETTON, C.B. (Chairman, London County Council), in proposing the vote of thanks to the President on his address, said: I have been very interested in your President's address. I think it brings out in a remarkable degree the importance to the community of architecture in the life of London. In the last few years there has been a crescendo of rebuilding, and I hope you will think that the result has been good and owes its excellence to your own education. You have captured the business men. The business man is an important factor in building in London to-day. He is constantly erecting large premises and he would not now dream of undertaking his expenditure except with the assistance and on the advice of an architect of reputation. But there is another somebody besides the business man to be accounted for and that is the local authority. The influence of local authorities has increased, is increasing and is unlikely to be diminished. The London County Council is the greatest landowner in London and, with it, has an enormous responsibility in matters of housing, health, clearing of slums and it has even its share in the traffic problem and the improvement of streets. We also have to do with that new art which is called town planning and with which architects are intimately associated. We wish to work with architects.

Unfortunately, like other people, architects sometimes differ and when they differ it is impossible to agree with all of them. Architects are not peculiar in this respect. I have even observed from the Chair of the County Council that London County Councillors differ as to their methods of arriving at the *summum bonum*.

We wish to work with architects. We want your assistance and advice.

Now your President has referred to the London bridges. With regard to Waterloo Bridge he gives us a meed of praise. I am not sure that that praise is not on a par with the joy in heaven over a sinner that repents but, on that account, when he praises us, his praise is all the greater and I am sure we are grateful

for it. But when we come to Charing Cross Bridge I am afraid he is not so satisfied. He agrees with us in the destruction of Hungerford Bridge, but after that I am afraid he does not approve our methods and he fears our destructive instincts. Now I am in a difficult position as Chairman of the County Council in this matter. I hold that honourable but ephemeral post only for twelve months. During that time I can exercise no vote and I have no voice. It is true I have a casting vote, but I have never known the London County Council in the position for the Chairman to exercise a casting vote, and I do not think that it has been done in the 40 years of the Council's existence. I am really the registrar of the decisions of the Council. To compare lesser things with greater, I can no more influence the Council on a matter of policy than the Speaker of the House of Commons can influence His Majesty's Government in their policy. And when I speak of His Majesty's Government it occurs to me to remind you that, in this matter of Charing Cross Bridge, His Majesty's Government pay 75 per cent. of the piper's bill.

I wish that the Chairman of our Improvements Committee were here this evening. He is the centre of the policy of the Council with regard to this matter, and I can well imagine that, if he were, a conversation might take place between you which would certainly be worthy of the British Broadcasting Company.

I am sure that Sir Banister Fletcher, who has a knowledge of local authorities from the position that he has held as Sheriff of the City of London, will recognise my position and agree that it is not in my power to argue a matter of policy of the Council in public. I note his views. I am bound to note his views. They come from the President of this distinguished association and I am sure they will be received at the intrinsic value which they deserve. He is a very well-known man. He is a classic author of architecture, a writer, a lecturer, whose influence is not confined to England. France, Italy, Belgium and New York have honoured him. We thank him for his address.

Sir WILLIAM LLEWELLYN, K.C.V.O. (President



of the Royal Academy), in seconding the vote of thanks to the President, said: By the comprehensive character of the President's address, and his detailed survey of the many-sided activities of this great Institute, its interests and influence in public affairs and schemes, and its education, its concern with all matters connected with architecture, whether they be business, or scientific or artistic, he clearly shows to those unfamiliar with this work how valuable the Institute is, how useful and indispensable, not only to architects but to communities, to the nation, and, as the President said, to the Empire. We welcome the President's remarks on education, especially those remarks concerning young students and young architects ignoring tradition. There is no doubt that tradition cannot be ignored; and if it is ignored, only too late will those who ignore it find out their mistake. In architecture, as in all art, there is a main trend, and this main trend continues through history; there has never been a real break. All changes that have taken place are perfectly rational developments, due to religious, social, scientific, moral, all sorts of demands of the time. The changes take place in accordance with the developments of history. Architecture is a mirror of history. It is rather interesting to think what the mirror of to-day will reflect. In these days of mechanical and scientific improvements, perhaps you may call them, when new materials come into use; it seems to me there must be a new style of architecture developing; perhaps it has developed, say, in such a city as New York. We can only hope it will not develop in that way in London. New materials make different demands upon the designing powers of an architect, because, whatever the material is, whatever the construction is, the artist—the architect—has to come along and make some sort of beauty out of it, and without disguising what the material is that he has used. And in that way, perhaps, a new style may be developed which has for its beauty not so much beauty in detail as beauty in mass, proportion and skyline. But I may hope that these huge blocks of flats and huge buildings that are being put up in London will have some sort of grandeur about them, and will not be merely like a lot of boxes piled one on the top of the other.

Your President spoke of environment. Architecture means more to the public and more to the man in the street than does any other art, because we are surrounded by buildings, we have to live in them; the creations of the architect are wherever we are, except in the remotest country, and they influence us unconsciously. We are, therefore, glad that the President should give us the assurance that this great Institute recognises the need of preserving beauty and providing it in all our surroundings—I give you his own words.

Mr. ARTHUR KEEN [F.], in supporting the vote of thanks, said: I came here to-night as a very old

friend of Sir Banister Fletcher, for we worked side by side in the days of our youth, as assistants in the same office, and it is, naturally, a source of very great pleasure to me to find him this evening occupying the Presidential Chair.

In his address he spoke of many interesting things, but of nothing which appealed to me so much as the subject of the bridges. He gave a very generous share of the time at his disposal to the question of Charing Cross Bridge, but he left much unsaid, a great deal of which will still have to be said—but I do not propose to say it now. There have been many views on the architectural aspects of the matter of Charing Cross Bridge, but I have heard no difference of opinion whatever about one subject, the need to take advantage of the possibilities this bridge offers to open up the south side of London; that is to say, the large district of central London which runs between the railway, London Bridge to Charing Cross and the river. The way to do it is to make a fine thoroughfare leading into that district off the approach road to the new bridge. I noted the other day what Mr. Dann, the town-planner in India, had to say on this matter. He said: "The south side, as it exists, is probably the grossest example in the whole world of the economic and aesthetic misuse of one of its finest building sites. No other capital city of an important state would put up with such conditions for a moment." And the way to rectify it all is to carry on a fine thoroughfare into the middle of that neglected district, to put a hotel on the river bank, and have the railway station lying back some distance, to leave room between for the proper development of that district. It is in the best interest of the railway company itself, as well as the public interest to do these things. What we have to do in this matter is to follow the lead of the London County Council. That body, with splendid initiative and imagination, set its own County Hall on the south side of the river, and there was much talk about it at the time; but the County Council proved itself worthy of the tradition it had set up. And we have to secure that the lead which they have so worthily set shall be followed, and that we shall have, in due course, a succession of fine buildings worthy of the river frontage of the greatest city in the world, from Blackfriars right through the City to London Bridge.

I know this is not a meeting for a discussion on London's bridges, but the last word has not been said on this matter, and I hope the opportunity will be given us by you, Sir, to discuss it at a meeting to which there will be invited all who are interested, so that it can be properly discussed. Whatever happens, I hope it will not be considered that the Royal Institute, in this matter, is disposed to be obstructive or difficult. We have been studying the question of the south of London for a generation, and we have tried, for





PORTRAIT OF WALTER TAPPEP, A.R.A., P.P.R.I.B.A.  
By Sir William Orpen, R.A.



more than 20 years, to get Charing Cross Bridge actually built. Our only desire is that what is best to be done shall ultimately be done; and any assistance this Institute can give towards producing that result will be at the service of the public.

The vote was put to the meeting by the Honorary Secretary and carried by acclamation.

The PRESIDENT, replying to the vote of thanks, said: I was particularly pleased with Lord Monkbretton; he let me off very lightly, I think, considering all the things I said about his bridge; but I am sure we all want to get at the right bridge. I do not think it matters how we get it so long as we eventually

arrive at a proper solution of this very difficult problem. I am confident of one thing: that the present scheme will never pass through the present House of Commons.

I was very much obliged to Lord Monkbretton for the things he said about our Institute, and also to Sir William Llewellyn, one of our very old friends here. If I may be allowed to say so, I was touched by the fact that my old friend, Arthur Keen, is here and spoke, as from him I learned so much when I was acting as improver, on nothing a week, in a well-known office; he told me a great deal of what I learned about my own profession.

## Unveiling of the Portrait of Mr. Walter Tapper, A.R.A., PP.R.I.B.A.

PAINTED BY SIR WILLIAM ORPEN, R.A.

The PRESIDENT: I have now the very great pleasure of unveiling and presenting to the Royal Institute the portrait of Mr. Walter Tapper, our Past-President. This portrait has been painted for us by his friend, and ours, Sir William Orpen. It does not require many words from me to remind you of the services which Mr. Tapper has rendered to the R.I.B.A., as President, during the last two years. When he came to the chair he had many friends, and no enemies; and he left it having made more friends, and, after two years of strenuous and sometimes controversial work, still with no enemies. I am sure we never had a leader whom we loved so much, or for whom we felt a warmer attachment. We admire his work as an architect, we are grateful for all the devoted service which he gave to the Institute and to the Allied Societies during those two memorable years; and, above all, I think we are grateful to him for the noble example of fine, simple and honourable conduct that he always showed. I have now to ask you to look upon a living portrait of our Past-President.

The portrait was then unveiled, amid much applause.

Continuing, the President said: You will see, and probably you will agree with me, that Sir William Orpen has achieved one of his most striking successes in the portrait of his friend, and he has also added a masterpiece to the gallery of portraits of Past-Presidents of which we are so proud. I ask you to give Sir William Orpen your enthusiastic applause for his work.

SIR WILLIAM ORPEN, R.A.: I feel very honoured at having been asked here to-night and also at having

been asked to paint the portrait of Mr. Tapper. I found a great friend, and one whom I shall appreciate all my life. I cannot talk about architecture, but I would say that all art is God's love, and we should be grateful that we live in this wonderful and beautiful world.

Mr. WALTER TAPPER, A.R.A. (Past-President): I have always understood that when one had one's portrait painted, it was a most unenviable time. All I can say is that it was the most enjoyable time of my life. I am very grateful to Sir William Orpen for having undertaken such a thankless job.

Among those who expressed their intention of being present at the meeting were: The Rt. Hon. The Earl of Crawford and Balcarres, K.T., P.C.; Sir Lawrence Weaver, K.B.E., F.S.A.; Sir William Orpen, R.A.; Mr. Charles L. Hartwell, R.A.; Mr. Frederick Rowland, C.C.; Professor R. M. Y. Glendowe (Slade Professor of the University of Oxford); Mr. Colin Smith, O.B.E. (Deputy Clerk of the Privy Council); Lt.-Col. C. W. Whincker, M.A., F.S.A.; Mr. C. Herbert Bedells (President of the Surveyors' Institution); Mr. W. Reynolds-Stephens (President of the Royal Society of British Sculptors); Mr. H. M. Hake (Director of the National Portrait Gallery); The Rt. Hon. Earl of Haddo, O.B.E. (Alderman of the London County Council); Mr. Joseph White, C.C. (Chairman of the City Lands Committee); Mr. J. S. Stewart-Wallace, C.B. (Chief Land Registrar); Lt.-Col. T. C. Moore, C.B.E., M.P.; Monsieur Emmanuel Pottier (President of the Société Centrale des Architectes Français); Dr. Drummond Shiels, M.C., M.P. (Under Secretary of State for India); Mr. F. K. Kendall, F.R.I.B.A. (Member of the Cape Provincial Institute of Architects); Mr. L. F. Irwin, A.R.I.B.A. (Fellow of the Royal Victorian Institute of Architects); Mr. Neville Minchin; Mr. Howard Robertson, M.C., F.R.I.B.A. (representing the President of the Société des Architectes Diplômés par le Gouvernement).





## A Plea for the Washing of Stone Buildings

BY J. ALLEN HOWE, O.B.E., B.Sc., F.G.S., M.Inst.M.M.



FIG. 5.—BRITISH COLUMBIA HOUSE

THE employment of stone for building is to some extent a matter of tradition; architects have for ages been hewers and carvers rather than plastic moulders, and stone still meets the demands of their instincts and training. Stone is indicative of permanence; it is a dignified material, and in urban areas, far removed from the quarries, its use postulates a degree of opulence.

Thus, in spite of changes in methods of construction, stone continues to be employed for the majority of better-class buildings. There is, however, another incentive to the use of stone, in the belief that the extra expenditure on its prime cost will be counterbalanced by relief from charges for frequent renovation, painting and the like, which are demanded by some other materials from self-respecting owners of town property.

A vital difference exists between the standards that satisfy cultivated taste in rural and urban stonework. In the former the stone may be left with a rougher finish, the units of construction may conveniently be small; the buildings are often exposed to the winds, and the adhesion of lichen and moss does but add to their charm. In urban conditions, however, rusticity is out of place; the rough stonework of small units, so delightful in the old houses of the Cotswolds, would be incongruous in the main streets of a city. On the other hand, in town buildings, larger units are employed and a smoother finish is given to the stone; and in conformity with certain aspects of town life the buildings tend to be somewhat self-assertive—attracting attention.

Now the country stone building is best left to itself as long as possible, the slow decay is not an offence. Even discoloration may be unobjectionable; the sixteenth and seventeenth century farmhouses on the outskirts of Lancashire industrial centres, built with local sandstone, are black with a hundred years' grime from the moist smoke-laden air, yet they are as pleasing to the eye as the grey Cotswold limestone cottages because of their decent design and unity with their environment.

The town building, with its large blocks of stone, high finish, and the prevalence of ornament, shows up the effects of weathering, dirt and wear very readily indeed; consequently some process of renovation or reconditioning becomes desirable if a high standard of appearance is to be maintained.

As matters stand, the bulk of urban stonework is left entirely without attention until drastic methods alone are applicable. It is the object of this memorandum to indicate the desirability of more general attention being paid to stonework from an early stage in the life of the building so as to avoid the need for more drastic treatment.

Since the procedure here advocated applies to all stonework, there is no need to specify treatment for particular kinds of stone. For brevity and convenience, the case of Portland stone, now so extensively employed, will be taken to exemplify stonework in general. Badly decayed stone of any kind requires consideration along different lines and is not dealt with here.

Buildings of Portland stone may be observed in a variety



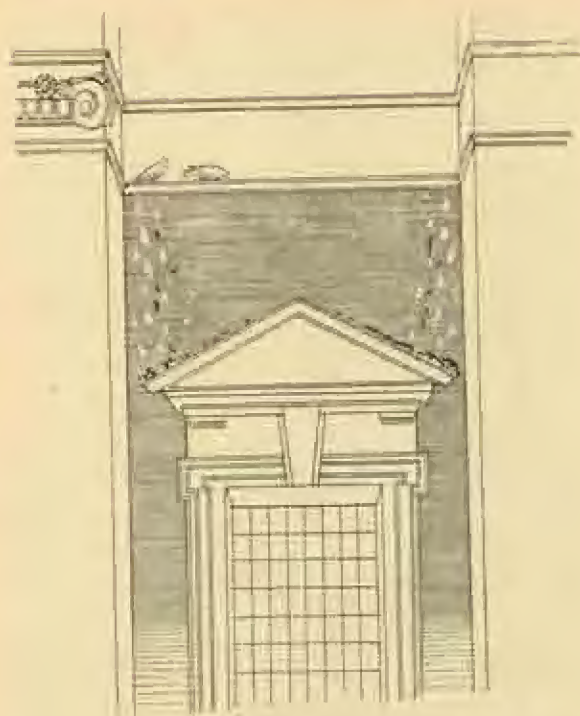


FIG. 1.—BROMPTON ORATORY

of conditions. The newly-erected building presents an appearance of creamy uniformity; all parts are alike and every stone is like its neighbours; the colour is pleasant and all the details of form have their full value.

A new building has, however, certain aesthetic drawbacks. Its newness is too obvious—it has not shaken down into its surroundings—the façade has still to acquire the look of a genuine stone structure; as yet its surfaces are too smug and flat, due to the adhesion of stone powder produced in the process of rubbing down.

Nevertheless, it takes no more than a few months for the new building to lose this flatness and tameness. One by one the stones begin to assert their individuality. Gradually the flat surfaces assume character—the character of true stonework.

From this stage onwards great diversity is introduced; local factors come into play which influence in a striking manner the appearance of the stone. Amongst these factors are:—

(1) *Aspect*.—Those frontages with a southerly or south-westerly aspect are generally cleaner than those which face in other directions, away from the prevalent wind.

(2) *Freedom to exposure*.—Buildings with a good expanse of open space in front of them are usually cleaner than those in narrow streets. The upper parts of all lofty structures are cleaner than the lower, more sheltered portions. The spires and towers of the city churches, exposed to wind and rain from every quarter, illustrate this effect very well.

(3) *Prevalent draughts*.—Even in narrow streets the stonework of portions of a building, which catch the force of local draughts of air, are seen to be clean, while immediately adjoining parts, more sheltered, are black with dirt.

(4) *Drip and downwash*.—The rain that falls upon a building runs off down courses determined by accidents of construction, form, or aspect. Where the downwash flows the stone is whitened, and commonly the clean track of the wash is bordered by patches of more than average darkness, due to the fact that their proximity to the flowing water causes them to be frequently damp and thus to hold the dust and smoke. This is produced the "Soot and Chalk" appearance so prevalent on Portland stone buildings.

When the building has been standing for a long period the appearance of the stonework becomes stabilised; well exposed parts will have become white, well sheltered and overhung parts will be black and encrusted; the southern frontages will be the cleaner and the northern uniformly darker. In narrow streets the ashlar of all elevations may be uniformly darkened.

If a street-door is painted and provided with a brass knocker, the status of the occupier is lowered, and the house degraded in the mind of the observant passer-by should the paint have been allowed to fade and blister or the knocker have been left unpolished.

It may well be asked—Why are not similar standards of cleanliness applied to stone buildings? Why do we go to the trouble of selecting a costly white stone or a red or brown one and allow it in each case to become black with dirt? Why do we decorate buildings with costly sculpture and carved ornament and permit them to become ridiculous with grimy streaks and the excrement of birds? (See Fig. 1.)

Perhaps the reason for this neglectful attitude is that in early days there was less difference between town and country; in the fresh, freely moving air of the country the stone building kept itself clean enough, and in a less degree the same might be said of the stone buildings of the



FIG. 2.—HORSE GUARDS' PARADE



small old towns. The growth of coal consumption, with the development of great cities and intense industrial activities, has changed the conditions, while the old habit of thinking that a stone structure could look after itself has lingered. We cleanse the streets and renew the paint on buildings but are content to leave stonework to collect the dirt, and as a consequence, to hasten its decay.

It has been suggested that the dirt on London buildings has its advantages, one of these being that it mercifully hides what has been described as "Victorian ugliness." This is not strictly true, and if it were, the fact remains that there is now a great preponderance of post-Victorian stonework in London. Are we to be ashamed of that also?

In the case of architectural sculpture the effect of dirt is even more objectionable. The figure of "Navigation" in Spring Gardens, Fig. 4, illustrates a common type of disfigurement; note the smudge from the right eye, the soiled right hand and the accentuated shadow on the neck. Fig. 5, representing a statuary group over the door at British Columbia House, Regent Street, exhibits similar defects; and though the mask shown in Fig. 6 may never have been sublime it is now without doubt ridiculous. Scores of similar examples are exposed within a mile or two of the City; at the Central Criminal Court, for instance, Justice herself has trouble in the eyes and Truth has an unpleasant suppuration from the ear.

Fig. 7, St. Martin's-in-the-Fields, shows the effect of



FIG. 5.—VICTORIA AND ALBERT MUSEUM

If a general drabness, due to dirt, covers the whole of a building uniformly—as it occasionally does—there is something to be said in its favour; for the intended architectural effect is secured as regards form, though drab was certainly not in the original colour scheme.

But the dirt is not often uniformly distributed; there are usually clean and dirty portions, appearing without relationship to the design and producing false lights and shadows inimical to the design. See, for example, Fig. 3, a view near the entrance to the Victoria and Albert Museum; the streaky forecourt wall contrasts unpleasantly with the uniform dun tone of the building and attracts the eye to a subordinate feature that is out of harmony with the principal theme. Again in Fig. 2, note the irritating effect of the drip streaks from the awning supports.

the prevalent wind. The left-hand pilaster bears the full force of the draught and is whitened; the right-hand one feels it a little at the side but not in front. The two columns show the harsh effect of the false shadow produced by the grime on the sheltered sides.

Fig. 8, the doorway of a London Hospital, which, for lack of regular washing, has for many years presented this unsightly appearance.

#### LOSS OF LIGHT.

One great advantage that would accrue from the maintenance of clean stonework would be an increase in the illumination from their reflecting surfaces. Fig. 9, the Quadrant, Regent Street, shows the dark older block of the Piccadilly Hotel flanked by new buildings. The





FIG. 4—"NAVIGATION," SIR JOHN GARGRAVE

latter will in time become as dark as the central portion, unless they are washed. It is obvious what a great loss of light there must be in the street and in the rooms opposite the darkened frontages.

#### SURFACE TREATMENT.

The need for a method of cleaning stone buildings is recognised by some occupiers of such property, and to meet this need quite a number of processes have come into being and are available.

Almost without exception these consist in the application of a surface coating of some kind, after the stone has had a preliminary clean down.

The result of these applications is to obliterate completely the original surface of the stone. The natural variety once exhibited by the stonework is replaced by a uniform sameness which makes even good stone look artificial.

These coatings range in thickness from a mere film to a substantial slurry and the objection to them is not

restricted to appearance, for the life of the coatings is not long and unless they are renewed at frequent intervals and at considerable cost they may actually facilitate flaking, caused by the decay which may proceed behind what affects to be a protective covering.

Some of these surface coatings adhere well to the stone but others begin to flake off themselves a few months after their application, leaving ugly patches behind.

The appearance of good stonework is frequently spoiled by the application of so-called "preservatives." Fig. 19, a Midland Bank in Piccadilly, is an example of the unpleasant result of such treatment upon a building only a few years old.

#### WASHING.

Periodical washing with plain water is a simple expedient which will cheaply and effectively cause the stone to exhibit its natural beauty of surface, while acting as a preservation against the insidious attack of the atmosphere.

His Majesty's Office of Works now regularly wash some of the public monuments under their care. The result may be observed in the Artillery Memorial at Hyde



FIG. 6—BURLINGTON HOUSE



Park Corner and the Guards' Memorial facing Horse Guards' Parade. The principal doorway of the Law Courts is periodically washed, and the Goldsmiths' Hall, Gresham Street, Fig. 11, is an excellent example of the good effect of regular and not too frequent washing.

The present appears to be an opportune moment for the consideration of the question; for if the stone-faced buildings in London, of which there has recently been so great a development, are to be kept in good condition and allowed to exhibit their true characters, no time should be lost in starting the periodical washing. If these new buildings are permitted to acquire the usual sooty coating it will be necessary to clean them by laborious and expensive methods before the washing

(2) To remove the products of chemical reactions between the air and moisture and the stone, which products are highly deleterious to the stone.

(3) To assist in the removal of salts produced locally in the stonework by exudations from the mortar or the ground, or by the action of fumes and smoke-stacks.

(4) To maintain the natural colour and texture of the stone.

(5) To keep the building in such a state that its surfaces will reflect and diffuse more light into the street and opposite rooms.

#### PROCEDURE RECOMMENDED.

Sluicing with a hose from the service supply or by means of a pump should suffice for the ashlar walls of



FIG. 8.—BROMPTON HOSPITAL.

can be effective. No amount of hosing will remove the firmly adherent greasy dirt once it has established itself.

If it is desired to clean a blackened frontage preparatory to regular washing, the steam-brush process is probably the most satisfactory method; but it is essential that steam alone should be used, without any aid from alkaline or other active solutions, such as have frequently been the cause of subsequent trouble when employed in conjunction with the steam-brush.

The object of washing with water is:—

(1) To remove loose dust and slightly adherent dirt, particularly from all crevices and ledges, where its accumulation is not only a disfigurement but is a potential source of decay.

fairly new buildings, except where there are bad patches; but mouldings, ledges and ornament need to have particular attention. The jet from the nozzle should be directed at an angle to the surface, not perpendicular to it.

It is recommended that this treatment should be applied once a year to all new stone buildings, beginning, if possible, not later than the third or fourth year after erection.

Where patches of efflorescence appear frequent brushing with plenty of water is the safest and most effective way of checking its corrosive action. Neglect of this precaution will invariably lead to disfigurement. In general the use of a brush should be avoided.

Washing may be applied to older stone buildings, but only very prolonged washing will remove the thoroughly





FIG. 7.—ST. MARTIN'S-IN-THE-FIELDS

established black and greasy coating found on the less exposed parts of many old buildings. Hence the desirability of beginning the regular washing before the stone has acquired this coating.

Although an annual wash may be regarded as normally sufficient if begun in time, a more frequent application may be advantageous in certain circumstances or in such parts of a building as balconies, balustrades and pediments.

Too frequent washing of Portland stone is to be avoided as it makes the stone unnecessarily white and unduly roughens the surface. Therefore the annual sluicing may be more than is required in some cases; the interval between the washings should then be arranged according to the need.

When a dirty or defective stone building has been cleaned down and renovated, the regular washing process should be commenced as soon as this work is finished.

Examples have been chosen from Portland stone buildings because they are now so prominent a feature in the newer building in many towns, and because they show in so pronounced a manner the defects arising from neglect. But all urban stonework will be found to benefit from the washing treatment; nor should polished marble and



FIG. 9.—THE QUADRANT, REGENT STREET

granite façades be excluded, for the whole object of using such materials is stultified by the veneer of dirt, so easily removed, which too often obscures their beauty.

#### COST.

One of the most obvious advantages attendant upon the regular washing of buildings is the very small charge on the maintenance costs, while ensuring a continuous good appearance to the frontage, instead of an intermittent and costly cleansing, involving the employment of cradles and much hand labour, between long intervals of dirtiness.

The cost of a single washdown of a fairly large frontage may be roughly estimated at about £10 to £15.

In London the Metropolitan Water Board can arrange for the supply of water for the purpose in the same manner as is adopted in the case of Goldsmiths' Hall. A



FIG. 10.—BANK IN PICCADILLY



forms of application is sent by the Goldsmiths' Company, requesting the attendance of a turncock and a supply of water for washing down the building, stating the day

supply of water. The user pays the cost of the turncock's attendance and makes his own arrangements for the washing: in the case of Goldsmiths' Hall this is under-



FIG. 11.—GOLDSMITHS' HALL

and hour when the supply is required, the size and number of jets which would be used and the probable period which would be occupied by the operation.

This application is made to the Board's Engineer and is passed to the Assessor, who fixes a charge for the

taken by Messrs. Merryweather and Sons, Ltd.

It should be noted that since the pressure in the Board's mains varies, the pressure in some instances would be insufficient effectively to clean the upper storeys of a high building without some process of boosting.

## A Building Account of 1621 Signed by Inigo Jones

Mr. Sigismund Goetze has presented to the R.I.B.A. library an original account signed by Inigo Jones and Thomas Baldwin for work done in the year 1621, in repairing a house at Sheen for Charles I, when he was still "the Prince his Highness." It was done "in the monethes of December and January 1621"—a reminder that the civil year ran from March to March in those days.

The work was not heavy, the total cost being only £46 2s. 7d. It included repairs to floors, roofs, gutters and ceilings, and the reinstatement of some panelling. The trades concerned were carpenters, bricklayers, plasterers, plumbers and smiths. The prices of some of the materials are mentioned, plastering being 11d. per yard,

lead 12s. per cwt., solder 9d. per pound, ironwork—in hinges 4d. per pound and in window-bars 3½d. Single iron casements were 3s. each, double casements (2 feet 2 inches high by 15 inches wide) were 6s. each, single stock locks 1s. each, double, 2s., new glass 5d. per foot. The only wages mentioned are those of labourers, which were 1s. per day, but the purchasing power of money was at that time quite five times as much as at present.

The account is signed as examined by Inigo Jones and Thomas Baldwin, the latter being Controller of the Works, and a frequent co-signatory with Jones of similar accounts which are preserved in considerable numbers in the Record Office.

J. A. G.



## Waterloo and Charing Cross Bridges

BY ARTHUR KEEN [F.].

The decision to reinstate Waterloo Bridge, arrived at by the L.C.C. on October 22, sets the seal on a long-sustained effort to secure the retention of the bridge in which the R.I.B.A. has played an important part, and a note on the history of the matter will not be out of place in this Journal.

The bridge stands on timber piles driven through the river gravel into the clay below it. In 1817, when it was opened, old London Bridge was still in existence, damming up the river in such fashion that it had become in effect a slowly moving lake with very little rise and fall. Since the rebuilding of London Bridge the tide running rapidly up and down has disturbed the gravel under the piers of Waterloo Bridge and thereby thrown greater weight on to the timber piles. By 1924 most of them had sunk to some extent and in that year the fourth pier from the Surrey side sank considerably and dislocated the two arches resting on it. The engineers thereupon condemned the whole bridge and the L.C.C. decided to rebuild it in another form with a six-way road and form a tunnel under the Strand as an essential part of the scheme. The Society for the Protection of Ancient Buildings took steps to disprove the need for rebuilding and asked the Institute to convene a meeting for the purpose of discussing the matter. This meeting was held on 19 February, 1925, and out of it arose a body representing many societies\* which became known as the Thames Bridges Conference. A deputation approached the L.C.C. on 24 February to point out that the bridge was far too valuable a monument to be sacrificed; that its reinstatement was fully possible; that the relief of traffic congestion could be better secured by a bridge elsewhere and that reference should be made to an independent authority upon the structural question. The deputation was informed that nothing could be done before July by which time, if it so desired, the Conference could secure evidence in support of its statement that the bridge could be underpinned and would then be probably the most permanent and enduring monument in London. A reasoned report was accordingly prepared setting out the evidence of some well-known engineers and in particular a fully detailed scheme for underpinning prepared by Mr. Harley H. Dalrymple Hay. Correspondence followed the delivery of this report and ultimately the Improvements Committee recommended that the bridge should be retained and underpinned, provided that the claims of the Conference could be established, and that the First Commissioner of Works should be asked whether the Government would be prepared to set up a technical commission of enquiry to ascertain whether underpinning could be safely done and how. This was rejected by the L.C.C. on 15 December, 1925, and the Council definitely decided by 82 votes to 32 to go on

with building a new six-lane bridge of not more than five arches.

The Conference then addressed a long letter to the Prime Minister asking for the intervention of the Government upon carefully stated grounds and this was followed by another letter and then by a remarkable memorial prepared by two members of the Conference, Lord Crawford and Mr. D. S. MacColl, with the result that the Royal Commission on Cross River Traffic in London was set up on 14 July, 1926, under the chairmanship of Lord Lee of Fareham with instructions to report especially on the subjects of Waterloo Bridge and the proposed St. Paul's Bridge. The case for the Conference was presented by Lord Crawford with evidence for the retention of Waterloo Bridge, the construction of a bridge at Charing Cross, and the abandonment of the proposal for a bridge at St. Paul's, and in the end the report of the Commission was entirely favourable and the Government undertook to pay three-quarters of the cost of the repair of Waterloo Bridge and of the construction of Charing Cross Bridge if, upon examination, the structural, financial and aesthetic aspects of the Charing Cross scheme proved satisfactory. The R.I.B.A. then endeavoured to secure the appointment of an architect to collaborate with the engineers entrusted with this examination, but the request was refused and the engineers put forward a new scheme based on that of the Royal Commission but showing Charing Cross station to be built on the south side instead of at the Strand. This scheme was sent by the Government to the L.C.C. for approval and the Conference again approached both the L.C.C. and the Prime Minister with very serious criticism of the proposals. Sir Edwin Lutyens was then called in to deal with the layout of the new bridge and its approaches. He has prepared a new plan which modifies the former arrangements in many important respects but it is understood that certain conditions, including the position of the railway station on the river bank, had to be regarded as unalterable.

The plan as now drawn shows an open square of about 300 ft. set angle wise on the centre line of the Strand, an approach road to the bridge deviating boldly from the axial line of the bridge and entering it by means of a small "place" with a monument in the centre; the railway station forms one half of a curved façade facing the river; an embankment next to the river is shown and a roadway leads to the entrance of the station from the new bridge and from Waterloo Bridge. York Road runs under the station in a tunnel about 120 yards long; Belvedere Road stops short of the bridge; the railway and the road from the bridge together cross over Waterloo Road with a width of about 125 yards, and the roadway then curves round on the east side of Waterloo Road running at the side of the railway and comes to ground at the New Cut nearly half a mile from the river in a circus, out of which Oakley Street, widened, turns through to Kennington Road.

\* The Royal Academy, Town Planning Institute, London Society, Society for the Protection of Ancient Buildings, Architecture Club, a number of civil engineers under the chairmanship of the late Sir Wilfrid Stokes and the R.I.B.A.



There are varying opinions as to whether the northern approach should start from the Strand as shown on the official plan or, as in the case of Westminster and Blackfriars Bridges, from the Embankment, the roadway being raised to some extent and the tram lines and part of the roadway lowered so as to run under the bridge; the President referred to this in his opening address on 4 November. There can hardly be two opinions as to the mistake of placing the railway station on the river bank. To do this is to stop, permanently, the opening up and developing of the portion of central London lying between the Southern Railway and the river. All that is required is for the railway company to consent to its hotel being built on the river bank and the

station itself being set back so as to let a wide thoroughfare run through into this neglected district. The two buildings would be connected by a subway and the station would be in immediate touch with Waterloo Station and the Tube Railway instead of being separated by a great main road. At the same time the long street tunnels which the President deprecates so strongly would disappear.

Any account of the efforts made to secure the retention of Waterloo Bridge would be incomplete without reference in a very particular way to the unfailing co-operation of a large number of engineers with Mr. J. S. Wilson and the late Sir Wilfrid Stokes at their head. But for the help and support they gave the efforts made must have failed.

## The late Thomas Hastings

BY PROFESSOR C. H. REILLY [F.].

The Royal Institute only recommends to His Majesty the King the name of a foreign architect for the Gold Medal every third year. In spite of the vast output of American building and its adventurous character during the last quarter of a century, only three American architects have been so honoured since the Institute was founded. The first was Richard Morris Hunt, the designer of the Metropolitan Museum in New York, and the first prominent American architect since the early part of last century to practise in the classical manner. He received the medal in 1893. In 1903 it was awarded to Charles Follen McKim, and in 1922 to Thomas Hastings. I quote these facts to show the position the latter occupied in the opinion of his contemporaries. He was in fact the doyen of American architects. It was not that his output was very great on the American scale, but that he had begun to occupy in his later years in the eyes of his countrymen very much the same position as Norman Shaw occupied with us. He was consulted by the Federal and other governments on important questions. He was a member of the Federal Fine Arts Commission, which was the forerunner of our own, and as the older body, has naturally a larger body of achievement behind it. In Hastings's regime, for instance, it gave America its present fine coinage. Municipalities consulted him on the layout of their public parks, and in the placing of their monuments. At the time of his death he was engaged on a replanning of Central Park, New York, which to us would be like replanning Hyde Park. Earlier the town of Baltimore had put itself into his hands and he had remodelled a great deal of its central portion. Atlantic City did likewise. America has always been liberal in her public monuments, and a number of these fell to him to design. There is the McKinley Memorial at Buffalo, the Paul Jones Memorial at Washington, the Lafayette monument as well as the American monument to the battle of the Marne in Paris, to mention only a few. Like Norman Shaw, too, towards the end of his life, he was often added as consulting architect for the façades of important buildings. The Cuzum Building in Broadway, the Ritz Carlton in Park Avenue are cases in point. There, however, the resemblance ends. Norman Shaw grew into his position with us through the inventive character and the excellence

of his domestic work, and, with a certain illogicality characteristic of us, we consulted him over our monumental schemes. Thomas Hastings was from the start a monumentalist. He was called in in such cases because the public had learned from his work that he could supply the desired note of elegance. Although others of his generation and before, like the two gold medalists mentioned, and many more since, had been trained in Paris, Hastings stood out by his personality and his work as pre-eminently the Beaux Arts man of the nineties—the great period of that famous institution. I think it was this which brought him his great opportunities throughout his life. The early hotel in Florida, Ponce de Leon, his first job, which he did with his Paris student friend, John Carrère, who was afterwards an assistant with him in McKim's office, and then his partner, with its elegant Spanish detail at once struck a new note. Hotels and large private houses followed quickly, and their distinguishing characteristic was the elegant beauty of their detail. From 1897 to 1910 the firm was engaged on the great marble structure of the New York Library, which they had won in competition. It is a building full of good things, such as the back elevation, where the "stack" of books is very logically yet finely expressed, as well as of less good. Of the faults of the main front Thomas Hastings in later years was very conscious, and it says a great deal for the constant striving for perfection in all his work, which was so characteristic of him, that he is leaving in his will, so he told me, not only the drawings for alterations to the front, but a large sum of money—I think he said a million dollars—to carry them out. In 1911 his partnership came to an end with Carrère's death in a motor accident.

From that date onwards Hastings alone, but with the able staff he always gathered round him, carried on a great amount of work, a large portion of which, such as the great marble blocks of offices at Washington for the offices of the Senate and the House of Representatives, the Arlington Memorial Amphitheatre in the same material, the Cenotaph to the Unknown Dead, the Altar of Liberty, and the Victory Arch erected in New York for the return of the Army, the Atlantic City War Memorial were of a public character. His chief commercial building at this time, apart from the string of



banks he had already built with his partner across the continent, was the Standard Oil Building at Battery Point, New York, the United Rubber Building in the same city, Devonshire House, London, and, best of all, the little building in Fifth Avenue, which includes the shop of Messrs. Black, Starr, and Frost. In London he also rebuilt the ground floor in Bond Street of Messrs. Knoedler's Galleries with the delicate detail he loved. In many of the universities of America, such as Yale and Cornell, there are large buildings from his hands.

Any list of his works, nevertheless, however extended, would not by itself give a just estimate of Hastings's influence and position. He carried into America the fine Beaux Arts tradition that the great and successful architect is in duty bound to help the younger men. As founder and president of the Beaux Arts Society, which stands in relation to the great American schools of architecture very much as the Institute of Prizes and Scholarships Committee does here, he devoted much time and energy to their competitions, serving himself on innumerable juries. We generally leave the assessing of such student work to the younger men. In America this is not the case, and it was particularly not the case with

Hastings. Although he was not a modernist and had both a love of ornament and a knowledge of it characteristic of his generation, but carried further with him, by his continual upholding of the Beaux Arts tradition of logic in architectural expression he may truly be said to have assisted in preparing the way for the modern movement. If, too, that movement to-day in America shows elegancies and subtleties of detail not to be found in the corresponding movement on the Continent, it is, I think, largely because men like McKim and Hastings by precept and example first made their country as regards architecture the conscious heir to all European culture.

Finally, having seen not a little of the enthusiastic and conscientious way in which he did his work with his own hands on the drawing board, always refining the detail and never satisfied till the last moment, and not then; knowing the hours he devoted to public work, whether for the student world or for his profession as a whole; knowing, too, from a long stream of my own students who have passed through his office, the deep affection he inspired in all around him; and lastly knowing the man himself at work and at play, I feel that with his death our art has lost a very noble and single-minded exponent.

## The late Geoffrey Scott

By EDWARD WARREN [F.]

By the death of Geoffrey Scott, architectural literature has sustained a severe, and indeed irreparable loss, in the removal of a supremely acute and highly developed intelligence trained in the observation, study, and practice of architecture, not in the narrow sense of mere professional preparation, but in that of sympathetic interest and attraction, and, therefore, to a predominant degree, educated, in the highest sense, by acute and discriminating observation.

His personal bias in architectural study was towards the various forms of the Italian Renaissance, and very naturally so, since the earlier years of his conscious training were largely spent in Italy, especially in Florence, where, in partnership with his friend Mr. Cecil Pinsent, he practised professionally for several years and, amongst other work, carried out additions to Mr. Benson's villa, notably the much admired library. His first initiation in architecture was made by a period of study in the old architectural school in Tufton Street, Westminster, and his early bias in favour of the work of the Renaissance was of course confirmed and stimulated by his long residence in Italy, and his careful and scholarly study of its manifestations in that country were largely devoted to confutation of prevalent nineteenth century criticisms of that manner. On the outbreak of the Great War, he accepted a diplomatic post at Rome, for which his long residence in Italy and mastery of its language well fitted him. There he married Lady Sybil Curting, and after the war lived for some time at Villa Medici, Florence. During this period he wrote "The Portrait of Zelde," the intimate biography of Madame de Charrière.

Returning to England in 1925, he began the "Life of Boswell" for the English Men of Letters series. On the subsequent discovery of the Talbot de Malahide papers, which he was invited to edit by Colonel Isham,

who had purchased them, he went to the United States, where he passed the remainder of his life, in the completion of this task, paying only one short visit to England in the summer of this year.

He had written in earlier years a number of charming poems of which a selection was published, with illustrations by W. Rothenstein, under the title of "A Box of Poems."

After preliminary education at Rugby, he went up to Oxford, and New College. Shy in manner, but extremely sympathetic in disposition, his warm kindness and vivid intelligence make his untimely death an irreparable loss to all who had the privilege of his friendship. It is hoped that a volume of his later poems will shortly be published.

### WESTMINSTER ABBEY.

The following letter from the Dean of Westminster was published in *The Times* of 22 October:—

To the Editor of "The Times."

SIR,—I am happy to be able now to make known the composition of the small committee which is to reconsider the various schemes that have been before the Dean and Chapter for the provision of a sacristy. The following have consented to serve:—Archbishop Lord Davidson of Lambeth, Sir W. Llewellyn (President of the Royal Academy), Sir Banister Fletcher (President of the Royal Institute of British Architects), Mr. C. R. Peers (Director of the Society of Antiquaries), and Mr. J. F. Green (Acting Chairman of the Committee of the Society for Protection of Ancient Buildings). The terms of reference will be as wide as possible—to review the schemes; to investigate any that appear to be worthy of further consideration; and to advise the Dean and Chapter on the whole question:—I am, yours faithfully,

W. FOXLEY NORRIS.



# Smoke Abatement

## REPORT OF THE SMOKE ABATEMENT SUB-COMMITTEE

The Smoke Abatement Sub-Committee was formed in consequence of the following letter which was received from the Secretary R.I.B.A.:

28 October 1927

### SMOKE ABATEMENT.

DEAR SIR,—At the last meeting of the Council, Mr. F. E. Pearce Edwards of Sheffield suggested that, in view of the powers recently conferred on local authorities by Parliament for dealing with the smoke nuisance, the time was opportune for the Institute to make further investigations into the question.

It was decided that the Art and Science Standing Committee should be requested to consider and report upon the matter, and they should also be asked to include in the reference the question of "acid-laden fumes."

I shall be glad, therefore, if you will lay the matter before the Science Standing Committee at their next meeting. Possibly the matter could be referred to a Joint Sub-Committee of representatives of the Art and Science Standing Committees.—Faithfully yours,

(Signed) IAN MACALISTER, Secretary.

Major C. F. Skipper,

Hon Secretary, Science Standing Committee.

The Science Standing Committee appointed the following members to act on the Smoke Abatement Sub-Committee:—

Mr. H. D. Searles-Wood, Chairman,  
Mr. R. J. Angel,  
Mr. P. W. Barnett,  
Mr. Lionel G. Pearson,  
Mr. P. J. Waldrum,  
Mr. Digby L. Solomon  
Major C. F. Skipper  
Mr. E. H. Evans

(ex officio).

Mr. G. G. Wornum was appointed by the Art Standing Committee.

Much information has been collected and the salient points will be set out in this report, but before doing so it may be well to recite the incidents which led up to the powers contained in the Act of Parliament and the subsequent bye-laws relating thereto.

In 1914 Mr. Herbert Samuel, President of the Local Government Board, appointed a Departmental Committee on Smoke and noxious vapours abatement, but, in consequence of the War, its operations were suspended, and in January, 1920, Dr. Addison, Minister of Health, re-appointed this Committee and their findings were issued in an interim report in June, 1920, and a final report in December, 1921.

Seventeen recommendations were made by this committee, which were as follows:—

(1) That the Minister of Health should be given powers to compel or act in place of defaulting authorities who refuse to administer the law with regard to smoke.

(2) That manufacturers and users of business premises should be legally obliged to use the best practical means to obviate polluting the atmosphere with smoke or other noxious emissions. This applies to Government establishments and railways and also to motor-cars and steamers.

(3) That standards of pollution should be fixed by the Minister of Health.

(4) That the duty of enforcing the law with regard to pollution should be transferred from the Local Authorities to County Authorities, but minor authorities should still have the power to take proceedings if they so desired.

(5) That the Minister of Health should be empowered to form Joint Committees consisting of two or more Councils if such proceeding would lead to the better administration of the law.

(6) That the Minister of Health should assign competent officers to assist in advising the Local Authorities and manufacturers with regard to means of abating smoke problems, and that they should report annually.

(7) That much larger fines should be imposed.

(8) That the various Statutory provisions should be consolidated into one measure.

(9) That the central housing authority should decline to sanction any housing schemes unless provision be made for adopting smokeless methods of supplying heat, unless same were impracticable.

(10) That the Government should encourage co-ordination and extension of research into domestic heating.

(11) That Local Authorities be empowered to make bye-laws requiring provision of smokeless heating arrangements in new buildings other than private dwelling houses, hotels, clubs and offices.

(12) That gas and electricity undertakings be encouraged to increase and cheapen the supply of gas and electricity.

(13) That the Alkali Works Regulation Act (1926) should be amended so as to apply to all manufactures from which noxious vapours should come.

(14) That a list of such noxious vapours should be included in the Act.

(15) That a general obligation should be placed on every manufacturer to use the best practical means to prevent the escape of noxious vapours.

(16) That the present system of registration be continued and extended.

(17) That the Minister of Health should be empowered to fix standards with regard to noxious vapours.

Following these recommendations an Act of Parliament was passed in 1926 to amend the law relating to smoke nuisances.

Section 1, amending the Public Health Act, 1875, in defining a chimney, excludes private dwelling houses, and deems smoke to be a nuisance and excludes the words "black smoke."

The word smoke includes soot, ash, grit, and gritty particles.

The fine of £5 is increased to £50 as the maximum penalty. In the Public Health Act, 1875, Section 98, it is enacted that any person who fails to obey an order of a Local Authority to abate a nuisance shall be subject to a maximum penalty of 10s. per day for default, and any person who knowingly and wilfully acts contrary to an order of prohibition shall be liable to a maximum penalty of 20s. per day, and the Local Authority may enter the premises and themselves abate the nuisance and recover the expenses of so doing. In the Act of 1926 the fines are increased to 40s. and £5.

Section 334 of the Public Health Act, 1875, excludes mines from its operation so as not to interfere with or obstruct the efficient working of the mine, nor the smelting of ores and minerals, nor the calcining, puddling and rolling of iron and other metals, nor to the conversion of pig iron into wrought iron. The Act of 1926 includes among these exemptions the processes of reheating, annealing, hardening, forging, converting and carburising iron and other metals, and if the Minister so makes an order other industrial processes may also be exempted, but the Minister may, by a provisional order at any time after 5 years from the passing of the Act,



exclude from the application of the section of the 1875 and 1926 Acts any process which has hitherto been exempted, and, if necessary, conditions may be imposed.

The Act amends the Public Health (London) Act, 1891, in so far as "black smoke" is concerned, also gritty particles, the increase of the penalty from £5 to £50, and also the penalties of 40s. and £5 as mentioned in Section (1) relating to the Public Health Act, 1875, and the 1926 Act.

Section 23 of the Public Health (London) Act, 1891, deals with "consumption of their own smoke in furnaces" and the penalties of £5 and £10 are increased to £25 and £50.

The Act provides that where a person has been proceeded against for sending forth smoke (other than black) it shall be a defence if he shows that he has used the best practicable means to prevent it, and it includes not only the maintenance of adequate and proper plant, but also the manner in which the plant is used. Where an officer, duly appointed, finds that a smoke nuisance exists, it is his duty forthwith to notify the occupier of the premises of the nuisance, and if such notification is not in writing, he shall confirm it in writing within 24 hours.

Section 2 empowers the Local Authority to make bye-laws as to the abatement of smoke nuisances, and may deal with the smoke in the matter of colour, density or content. In the application of the Act to London, the Port Sanitary Authority shall be the Local Authority for the district of that Authority, but save as respects that district, the London County Council shall be the Local Authority for the County of London, and the Common Council shall be the Local Authority for the City of London.

Section 3 includes under the expression of "chimney" any opening capable of emitting smoke both in London and the provinces.

Section 4 empowers the Minister, after public enquiry, to make orders extending the list of noxious or offensive gases under the Alkali Works Regulation Act, 1906, and extend the list of works included in that Act.

Also, if the Minister of Health may be of opinion that any work is of such a character as is likely to cause the evolution of any noxious or offensive gas, he may, notwithstanding the Alkali Act, authorise his officer to enter and inspect such works, and apply the provisions of the Alkali Act if such course were deemed necessary.

Section 5 enables all Local Authorities, both in London and the provinces, to make bye-laws requiring in new buildings (other than private dwelling houses) that arrangements be made for heating and cooking which will prevent or reduce the emission of smoke. Two or more Authorities may combine to carry out the duties of this Act under Section 6.

Section 7 provides that when a Local Authority in a County has failed to carry out the Act, the Minister of Health may cause an inquiry to be held, and if the Authority is found to be in default, the County Council may take over the duties and charge the cost of carrying out those duties to the Local Authority.

Section 8 provides that all County and Local Authorities shall from time to time report to the Minister as to any action they have taken to abate smoke nuisances.

Section 9 exempts ships which are habitually used as sea-going ships from the Act.

Section 10 gives power to one or more (in combination) Authorities to undertake researches into the problems relating to atmospheric pollution and the abatement of smoke nuisances.

Nuisances which are suspected of existing in premises belonging to the Crown must, under Section 11, be reported to the Minister controlling such building.

The Act came into force on 1 July 1927.

#### THE RESULT OF A SMOKE LADEN ATMOSPHERE ON BUILDINGS.

A letter from Dr. Landar, the Director of Fuel Research, is as follows:—

*Department of Scientific and Industrial Research,  
Fuel Research Division,  
16 Old Queen Street, S.W.1.  
6 February 1928.*

#### ATMOSPHERIC POLLUTION.

DEAR SIR,—In reply to your letter of 24 January, your queries are not easy to answer.

(1) The action of the sulphur acids is very different for different stones; some stones showing signs of disintegration within three years in the present atmosphere of London, while other stones are unaffected after 80 to 100 years.

It seems possible that any trace of sulphur acids in the atmosphere will cause disintegration in time on certain stones.

There are very few data published giving the sulphur content of the air in various places; more often it is the amount of sulphate present in the rain water which is recorded.

It is rather remarkable that a high sulphur content in the water is found in country districts miles away from any large town, the amount not differing very much from that in the rain in town areas.

(2) The sulphur in coals and cokes varies according to the coal seam, and it is impossible to give any general answer except that properly purified gas should contain less sulphur than any other form of fuel derived from coal.

I can see no hope of the coal being treated in any way that will reduce the sulphur naturally contained in it, except by its conversion into gas which can be purified before it is burned.

The percentage of sulphur in the atmosphere depends not merely on the type of fuel burned, but on the quality and the extent to which the original products of combustion have been mixed with purer air.—Yours faithfully,

(Signed) C. H. LANTIER, *Director of Fuel Research.*

Striking evidence has been given as to the serious damage occasioned to public and other buildings by smoke and other impurities in the atmosphere.

The damage is mainly due to the sulphurous and sulphuric acids contained in the products of combustion, but it is pointed out that particles of soot united with these acids materially enhance their injurious effect. The acids become concentrated and the tarry content of the soot makes the mixture more adhesive.

In such buildings as the Houses of Parliament, Buckingham Palace, Somerset House, and Chelsea Hospital, where are the normally good weathering stones are being rapidly disintegrated by the acid soot. It has been given in evidence that the upkeep of public monuments and buildings would be reduced by at least one half if a pure and smoke free atmosphere could be obtained. Sulphuric acid particularly corrodes or disintegrates practically all kinds of building materials. Marble tends to turn green and then black. The absorption of sulphur gases by limestones resulting in the formation of gypsum is, in this country at least, the most potent cause of their decay.

In the case, even of internal frescoes, the porous surface of the carbonate of lime provides opportunity for the tenacious lodgment of dirt and for the destructive action of the acids. The carbonate is transformed to gypsum. It is so expanded that it loses its binding power while the painting ground is often destroyed.

Some idea of the destructive effect of soot on buildings may be formed from returns compiled by the Department of Scientific Research during the year 1927-28 when it is recalled that in the City of London 595 tons are deposited in a year per square mile of surface and soot deposits three quarters of an inch in thickness have been scraped off cornices.



The soot-fall in other places is given as follows:—

Leeds (suburbs)	168 tons per square mile.
Leeds (industrial)	342 " " " "
Glasgow	447 " " " "

The substances derived from the combustion of soft coal and other fuels which are injurious to stone may be divided roughly into two classes:—

Class I. Those which soil buildings, i.e., carbon, tar, ash and their various combinations.

Class II. Those which corrode and in general aid in the destruction and weathering, i.e., sulphuric acid, sulphurous acid, hydrogen sulphide, hydrochloric acid, ammonia and organic acids.

The action of carbon and ash when not associated with tar is not extremely objectionable as the simple process of dusting will remove either. When, however, they are associated with tar, especially in the case of soot, we have the most objectionable kind of dirt. While the soiling effect of soot is by far the most evident to the eye it does not in itself cause the deterioration of building material. This cannot be said of the corroding agents of which sulphuric acid is the most important.

The effect of sulphurous acid is nearly as serious as that of sulphuric acid. Ammonia is also dangerous in that it combines with sulphuric acid and ammonia-sulphate has a deleterious action on stone. The action of hydrochloric acid and hydrogen sulphide, though probably of less importance cannot be dismissed as innocuous.

Building Stones may be divided into two classes.

1. Stones which do not contain the carbonates of calcium and magnesium such as granite, gneiss, and sandstones (in which the grains of sand are cemented together by some substance other than carbonates.)

2. Those containing larger or smaller amounts of the carbonates of calcium and magnesium, such as limestones, dolomitic limestones, and sandstones with a calcareous cementing material.

Stones of Class 1 are but little affected by atmospheric acid.

Stones of Class 2 are acted upon by sulphuric acid which attacks the carbonates of calcium and magnesium. Both classes, of course, are disfigured by soot deposits.

At the present time no method of preservation is known which will adequately protect those building stones which are liable to attack by deleterious acids—the conditions required to be fulfilled by such solutions are mutually contradictory. Temporary protection can be obtained by the use of certain of the many methods of preservation which have been suggested from time to time during the last eighty years, but the temporary protection so obtained is likely to be followed by an acceleration in the rate of decay. Periodic washing down with water is probably the most effective preventive measure that can be applied in corrosive atmospheres to prevent the accumulation of soot and to keep the stone free from harmful accumulations of disintegrating salts. References should be made on these points to the reports of the Building Research Station.

#### THE CAUSE AND CONSTITUTION OF A SMOKE-LADEN ATMOSPHERE.

Factory chimneys are by no means the chief offenders in emitting smoke which pollutes the atmosphere even in industrial areas.

According to the Committee on Smoke and Noxious Vapours Abatement (Ministry of Health) domestic chimneys contribute at the least 30 per cent. of the total smoke nuisance and at least 6 per cent. of the bituminous coal ordinarily burnt in domestic fireplaces escapes, uncombusted, in the atmosphere as soot.

Taking 2½ million tons as the amount of coal burnt annually in the United Kingdom (exclusive of Ireland) in its natural condition for domestic purposes, the loss amounts to 2,350,000 tons, or more than half the total amount of fuel required to heat the Metropolitan area for a whole year. That is to say,

nearly 2½ million tons of soot escape into and pollute the atmosphere every year from domestic fireplaces alone.

Domestic soot contains a considerably higher percentage of carbon and tar than factory soot, and by reason of its large proportion of tar, it adheres to every object upon which it falls and is, therefore, more obnoxious and destructive than soot emitted from factories.

Two varieties of fuel, hard and soft coal, are worthy of consideration, for at least 90 per cent. of the corrosive acids and soot are produced by their combustion. They consist of ash, coke, volatile matter and sulphur, of which only the volatile matter and the sulphur have an important bearing on the subject.

Anthracite coal burns without smoke and very little soot. On the other hand bituminous coals, especially those of a high volatile nature which contain large percentages of hydrocarbons, rich in carbon, are particularly bad smoke producers. When bituminous coal is thrown on the fire, the volatile matter, consisting for the greater part of compounds of carbon, hydrogen, and oxygen, is driven off. These compounds are more or less completely dissociated by the heat of the furnace into hydrogen, carbon (soot), etc., but if the furnace is properly constructed and operated they will unite with the oxygen of the air to form colourless gases, carbon dioxide and steam. If the furnace is not properly operated and there is, say, a lack of air, smoke will be produced in smaller or larger quantities.

The sulphur in coal is combined for the greater part with iron as iron sulphide. During combustion most of the sulphur unites with oxygen forming sulphur dioxide and sulphur trioxide. A small part escapes as hydrogen sulphide and various sulphur-containing organic compounds. That which does not burn remains as ash, for the most part sulphide of iron. Of the sulphur which escapes up the chimney some is occluded in the soot, the rest escapes as gas.

Acid held in the soot is capable of being much more deleterious in its corrosive action than that which escapes in the air.

71.78 per cent. of the sulphur in coal passes out as sulphur gases, while 13.21 per cent. is absorbed in the soot and mainly escapes into the atmosphere, and 13.71 per cent. remains in the cinder and ash.

Under proper conditions of boiler firing there is no reason to suppose that the ratio of SO<sub>2</sub> to SO<sub>3</sub> in the gases from various coals will vary widely. The total amount will of course be dependent upon the amount present in the fuel burned. This amount varies widely with different fuels. In anthracite the percentage varies from 0.5 to 2.0 per cent., in bituminous coal from 1 to 4 per cent., and in oil from 0.7 to more than 3 per cent.

#### MEANS TO BE ADOPTED TO REDUCE POLLUTION OF THE ATMOSPHERE.

It is obvious that if a fuel could be discovered which would not give off the deleterious matters into the atmosphere, the causes which tend to decay stone and other building materials would be removed and the health of the inhabitants would be improved, more pure sunlight would result, and a greater part of the dirt and dust would be eliminated from our towns.

The Government has done much good work in instituting the Fuel Research Board. The authorities of various industrial towns in Great Britain, also the Mellon Institute of Industrial Research and School of Specific Industries and the City of Pittsburgh—both the latter in America—have also prosecuted investigations and much useful information has been the result.

The Fuel Research Board have been investigating a fuel produced by low temperature carbonisation and about eight firms have entered the market with smokeless coal, of which four are active.

Ordinary gas coke, produced by the gas undertakings, is obtained by heating the coal in retorts to a temperature of about 1,200° C. In this process practically all the live gas



obtainable is extracted but the sulphur content of the coal remains, as likewise the ash.

From the reports of the Fuel Research Board we learn that the coke obtained by the low temperature carbonisation process is produced by heating the coal to about 600° C., and consequently has a higher proportion of gas retained. Like gas coke, the sulphur and ash is retained in about the same proportion to the original coal. It ignites very easily and gives off no smoke or soot. About three-quarters of the weight of the original coal remains as coke and is an excellent domestic fuel, clean to handle, and burns evenly for long periods without attention, and more heat is radiated into a room when burning this coke than when burning an equal weight of raw coal in spite of the fact that the coke has a somewhat lower calorific value. It also heats suitably designed ovens and domestic boilers better than raw coal. The relative radiant efficiency as between low temperature carbonisation coke and raw coal is as 30 per cent. for the former to 24 per cent. for the latter.

There still remains, in part at least, the objection which owners of buildings, etc., labour under, namely, that the whole content of sulphur in raw coal is distributed in the atmosphere even when using L.T.C. coke, but the absence of soot (and consequently tar) will not cause it to adhere to buildings as at present, but the sulphur transformed into sulphuric acid will attack stone.

Alternative methods of heating rooms by gas and electricity as against coal and L.T.C. coke have much to be said in their favour except for the cost, which is, of course, an important item to the average householder.

Assuming coal and coke to be 45s. per ton, gas at 10d. per therm, and electric current 1d. per unit (power), the following table will show the costs of warming a room of 2,000 cubic feet capacity, according to a report by Margaret Fishenden, O.Sc., assisted by R. E. Willgress, B.Sc., on the "Heating of Rooms" for the Department of Scientific and Industrial Research.

This ratio of costs is, however, materially modified in practice, because the various methods of heating differ widely in the facility with which they can be used to apply heat exactly where and when it is needed. In regard to this facility electricity has the greatest advantage, while water heating comes last. For intermittent and local application of heat this consideration may go far to modify the relative costs based on the above conditions:

Number of occupants.	Hot water radiators by coke-fed boiler.	Gas heaters.	Electric heaters.
1	5.0 pence	12.8 pence	38.0 pence
4	1.0 "	10.4 "	30.6 "

It will be seen from the above figures that the cost of gas for air heating is about 2½ times, and the cost of electricity about 7½ times that of coke for continuous heating, but, owing to the greater ease of control, gas or electrical appliances only need be used when required.

Cooking by gas has been proved to be as economical as by a coal fire, since the latter must be maintained for much longer periods than those actually required, but it is generally considered that cooking by electricity is expensive at the present rate.

From the smoke prevention point of view there still remains the smoke and gases produced at the source of production of electricity and gas.

Also for central heating, oil-fed boilers for hot-water circulation has proved an economical proposition both on fuel and labour and running costs.

The Sub-Committee find that there is at present no economic process by which sulphur can be eliminated from the atmo-

sphere entirely, but the minimum seems to be by the universal use of gas or electricity for heating—the latter being preferable if the cost could be brought within the range of the ordinary householder.

The use of coal in its raw state produces great destruction in buildings, it is injurious to the health of the inhabitants, and the cost of disposing of the ash is a great factor in the national expenditure, and even in the dust destructor, sulphur and grit are distributed over a wide area through the chimney stacks.

The Sub-Committee recommend that the inspectors, mentioned in the findings of the Government Commission, should be urged to be more vigilant in their observations and should fearlessly report to the Ministry of Health on their work, and that local authorities should also be more active and impartial in suppressing both smoke and noxious vapours from industrial premises.

The public should be instructed both in the harmful effects of fouling the atmosphere with smoke and noxious gases and also in their civic rights in its prevention, and be invited to stimulate the local authorities in using to their utmost the powers given them in the Act of Parliament.

The Royal Institute of British Architects might with advantage organise means to inform the public, and suggest remedies and support any action which would remedy the evil of the smoke nuisance.

#### NOTES FOR ARCHITECTS ON SMOKE ABATEMENT

When designing public buildings, such as Town Halls, Libraries, Schools, etc., the local authority should see that suitable provision is made for preventing, or reducing to a minimum, the emission of smoke.

Where, as will frequently be the case, the whole building is warmed by means of a central heating apparatus, the matter of smoke abatement will be simple, and whether the medium adopted be hot water, steam or warm air, the main consideration in reference to smoke abatement will be to use smokeless fuel, such as coke, anthracite (or oil) in the heater or boiler. There may, however, be parts of buildings or rooms which, on account of their purpose or the limited occasions of their use, cannot conveniently depend on a central heating apparatus. In such cases some other provisions must be made, and the alternatives are (1) the use of gas for heating, (2) the use of electricity, (3) the use of smokeless fuel, or (4) the use of apparatus which is adapted to burn coal with the least necessary smoke. A few suggestions under each of these headings may be made.

(1) *Gas.* Gas fires for heating rooms occasionally used for limited periods, or for apparatus for heating limited quantities of water not regularly wanted, or for cooking, afford a practicable alternative to the use of raw coal which is free from smoke and usually economical in use. The chief consideration is to provide proper flues or other suitable outlets for the products of combustion, which though not visible, may none the less be dangerous to health if allowed to escape into a room inadequately ventilated.

(2) *Electricity.* For every potential therm electricity is usually more costly than gas, but electric apparatus for cooking and heating may excel even gas in the accuracy with which the heat can be applied to the spot where it is needed, and in this way may, in some cases and for some purposes, prove both practical and economical.

(3) *Smokeless Fuel.* There are three such fuels now in use (a) anthracite coal, (b) ordinary gas coke, and (c) modified coke produced by special carbonisation.

(a) *Anthracite* is a dense, hard fuel of generally good quality and high calorific value. It is usually burnt in stoves but will burn in suitable cooking ranges.

(b) *Coke*, weight for weight, when reasonably free from moisture and ash, can be used for heating effects in open sitting-room grates. The efficiency of good coke as a fuel,



its relative cheapness, and its freedom from smoke, together constitute advantages for the sake of which it is worth while to overcome the slight difficulties in regard to its use. When fixing open grates intended to burn coke, attention to the following points will tend to ensure success.

As there is little chance to heat up the air entering the chimney flue, that flue should have a good draught. The distance from the top of the fire to the chimney should be rather less than for coal fires, and the fire should not project too far forward to cause risk of any of the products of combustion escaping into the room. The column of fuel should be deep and be well insulated with firebrick, except where exposed to view in front. Grooves or ridges in the firebricks to allow air to pass are useful, and means to regulate the draught both below the fire and above it into the flue are desirable. Means to remove the fine ash which may accumulate without much disturbance of the glowing coals are also desirable.

(c) *Modified coke* is now being manufactured by commercial firms. When made from washed coals, blended or otherwise, it ignites and burns more readily than ordinary gas

coke. There seems prospect that the manufacture of this product will, ere long, give a supply of smokeless fuel less difficult to burn in ordinary grates than coke.

(4) Where, owing to local conditions, the use of raw coal must still be regarded—in spite of the serious objections—as the most suitable or economical fuel to use in open fires or in ranges, something may be effected by selecting grates which at least facilitate the reduction of smoke to a minimum by reasonable stoking, for it is recognised that with open coal fires care in stoking must be by far the largest factor in reducing the production of smoke. Control of air supply to the fire, enclosure with firebrick insulation, overhanging back low enough to be generally hot, not too great in extent, and hollowed to concentrate the products to the centre, are useful features. Probably a suitable grooving of the firebrick assists the supply of air. As regards cooking ranges, the leakage of cold air into the flues should be prevented, and a closed firebrick chamber under the fire through which the regulated air supply can be admitted and where it will be warmed before reaching the coal will be found helpful.

## THE TWELFTH INTERNATIONAL CONGRESS OF ARCHITECTS, BUDAPEST, SEPTEMBER, 1930.

The following letter regarding the above Congress is published for the information of members who wish to attend:—

XII. International Congress of Architecture in Budapest between 8 and 13 September, 1930, organised by the Hungarian Section of the "Comité Permanent International des Architectes."

Preceding Congresses: Paris, 1900; Madrid, 1904; London, 1906; Vienna, 1908; Rome, 1911; Hague and Amsterdam, 1927.

DEAR SIR,—Allow me to inform you that the C.P.I.A. International Permanent Committee of Architects have accepted the kind invitation of the Hungarian Government and of the capital of Budapest to the XII. International Congress of Architects, which will take place in Budapest in 1930. The Hungarian Section of the C.P.I.A. together with the Hungarian Societies of Architects, have undertaken the organisation of the Congress.

The conferences will begin in Budapest on the 8th, and will last till the 14th of September. In connection with these conferences excursions and an International Exhibition of architectural plans and designs will be arranged. During the excursions we intend to show the members of the Congress the architectural development of our capital the representative, as well as the industrial and commercial buildings (in connection with the subject of the fourth debate). The International Exhibition is intended to demonstrate the architectural development, since the war, in the most important countries.

Budapest, the capital of Hungary, with its splendid situation on both banks of the Danube, with its surprising development during the last hundred years, with its world-renowned thermal springs and baths—some of which are many hundred years old—and with the green, encircling mountains in Buda, makes always an indelible impression on the travellers.

The conferences of the Congress will be held in the large Redoute Hall of the town, which is one of the most interesting productions of the romantic period of Hungarian architecture. By means of the different receptions the members of the Congress will be able to visit the different halls of various architectural areas, which are generally difficult to see. The International Exhibition will take place in the great halls of the building for exhibition of works of art. By combining the programmes, we should also like to show our museums, particularly the precious collection of modern Hungarian pictures and the most interesting section of the Hungarian National

Museum: the ethnographic collection, which give a comprehensive idea of the riches of the Hungarian peasant-art.

### THE SUBJECT MATTER OF THE DEBATES.

1. The adaptation of architectural education to modern practice, with special reference to commerce and the organisation of building works.
2. Syndical Chambers of Architects and the legal status of the architect.
3. Artistic copyright in relation to the work of the architect.
4. The rôle of the architect in industrial buildings.
5. The acoustic properties of large halls.

Particulars of the debates as well as the text of the conferences will be sent in good time to the members of the Congress. These general notices will be elaborated and given out by general reporters in the beginning of the Congress.

### OFFICIAL INVITATION.

The official invitation will be sent next spring to those who wish to take part in the Congress. This preparatory bulletin, which will also be sent through the Hungarian Legations, is intended to make known in good time when the Congress will take place in order to enable a large number of our colleagues to attend the Congress.

To the official invitation will be attached a list of particulars of the journey, viam, etc., as well as the exact programme for each day. A ticket of admission to the Congress will also be enclosed.

We are quite ready to give any information concerning the Congress, and we beg you to send all communications to the Congress Office (Budapest, IV, Reáltudósok 12-14).

Yours very truly,

ROBERT KERTÉSZ,  
President of the Executive Committee  
Architect, Secretary of State.

### HOSPITAL PLANNING

It will interest members of the Institute and all students of hospital planning to know that the authoritative paper on English Hospital Planning which was read before the Institute on 27 May by Mr. H. Percy Adams [F.], and subsequently published in two parts in the JOURNALS Nos. 15 and 16 of the current year, has now been published in pamphlet form and can be purchased at the offices of the R.I.B.A. (4s.). The pamphlet contains 108 plans of various hospitals in the text.



## Allied Societies

(The attention of Members of Allied Societies is particularly called to this page)

### AN INDIAN INSTITUTE OF ARCHITECTS.

Following closely upon the foundation of the Australian Institute of Architects comes the news of the creation of an Indian Institute of Architects. This again is the result of many years of effort. With the help of the R.I.B.A., a Bombay Association of Architects was established some years ago and admitted as an Allied Society of the R.I.B.A. It was given representation on the Council of the R.I.B.A. and was entrusted with important functions in architectural education and examination.

Now this Bombay Association has been developed into an Indian Institute with the whole of the Indian peninsula as its province, and it is hoped that before long it will have branches in Bengal, Madras, the United Provinces, and the Punjab.

In the field of architecture the circle of Imperial organisation is now complete and the Indian Institute takes its place beside the Royal Architectural Institute of Canada, the Australian Institute of Architects, the Institute of South African Architects, and the New Zealand Institute of Architects, which are all working in federal union with the R.I.B.A. for the control and advancement of architecture throughout the Empire.

### ESSEX, CAMBS AND HERF'S SOCIETY OF ARCHITECTS.

#### WEST ESSEX CHAPTER.

The first Meeting of the Season was held on Saturday, 19 October, when a party of 36 members and friends mustered at the Imperial Chemicals Industries building at Millbank, when they were privileged to inspect the building by the courtesy of Sir Frank Baines, F.R.I.B.A., K.C.V.O., C.B.E. (who was represented by Mr. R. H. A. Jones, Chief Assistant, and Mr. A. P. Pinks, Engineer). Afterwards the company was entertained to tea when an opportunity was afforded to the Chairman, Mr. Christopher M. Sluier, A.R.I.B.A., to thank the company and the architects on behalf of the Chapter.

Afterwards an inspection of drawings of stained glass was made at the South Kensington Museum and the party was conducted over the gallery of ancient stained glass by the artist, Mr. Sydney Eden.

The Dinner in honour of the architects reconstructing St. Paul's Cathedral will be held on 5 December, when the Presentation of the drawing will be made to the President of the City Livery Club for hanging in the Old Chapter House, where it will be preserved by them and open for inspection.

### HAMPSHIRE AND ISLE OF WIGHT ASSOCIATION OF ARCHITECTS.

At the opening meeting of the 1929-30 session of the Hampshire and Isle of Wight Architectural Association, held at the Castle, Winchester, on Friday, 18 October, the president, Mr. J. A. Smith, F.R.I.B.A., delivered the opening address, in the course of which he said:

I think that we, as an Association, can look back over the past year with a measure of satisfaction, and even pride, when we review the work of the session. We have increased in numbers, and developed in activities, enlarging our scope for usefulness in the profession. And we have maintained a worthy aspiration in the cause of architecture. We have had the privilege of visits and lectures from such eminent men as Professor Reilly, Dr. Raymond Unwin, Capt. Edwin Gunn, Mr. Sylvester Sullivan, Mr. Ansell and Mr. Bennett. From

these we have not only received education and inspiration ourselves, but we have, through them, provided matter of interest and edification for the general public. And we ourselves have had opportunities of public service in addressing Rotary Clubs and Women's Institutes. These occasions have been taken advantage of by Mr. Roberts and myself in speaking on architecture and the work of the C.P.R.E., etc.

I am glad to refer here to our *Year Book*, for the publication of which we are indebted to Mr. T. D. Atkinson, the editor, and to our honorary secretary, Mr. Roberts, who has so ably arranged its publication. This *Year Book* is a very great asset to our Association; it is of great value to members, with its complete and concise information, and ranks second to no other similar publication amongst the Allied Societies or any other technical association. I would here call attention to our library. As an Association we already own a number of very valuable books as the nucleus of a library which we hope to acquire by degrees. We are indebted to our honorary secretary for the housing of these volumes, and also for his very kind offer of the use of his own particularly fine library for reference. I hope that this very generous offer of Mr. Roberts is being made good use of. It is my pleasure to announce to-day the following additions to our library by the generosity of two of our members. Our honorary member, Mr. Geo. Brummell, A.R.I.B.A., of Bournemouth, has very kindly presented bound copies of the R.I.B.A. JOURNAL for a number of years, a most valuable addition to our catalogue. And Mr. Roberts is presenting the following:—*St. Paul's Cathedral in Isometric Projection*, by R. B. Brook-Greaves and W. Godfrey Allen; two engravings by Piranesi: *The Masterpieces of Sir Christopher Wren*, drawn by Professor Cockerell, and engraved by William Richardson; an original pencil drawing of St. Maclou, Rouen, by Samuel Proust; and a collection of architectural lantern slides. We extend to Mr. Brummell and Mr. Roberts our very cordial thanks for, and appreciation of, their generous gifts.

In connection with architectural education, we are glad to have the distinction of a representative on the Board. Mr. Roberts, our honorary secretary, has been appointed by the Council of the Institute to represent us. The programme of architectural education which the Board have is extensive and democratic, making it possible for any student with ability, and the necessary zeal, to enter the profession and rise from the humblest circumstances to its foremost ranks.

We have followed with interest the big architectural problems that have come into prominence during the year.

In our own area we welcome the commencement of the erection of the new municipal offices at Southampton, a very important step in the architectural history of that town. The new Fire Theatre, and the completion of Lloyd's Bank and the new Roman Catholic Church in Shirley Road, are very notable additions to the town amongst other buildings of distinction. We note also with interest the opening of Bitterne Bridge. We have had the privilege as an Association of visiting and inspecting the completion of the new Pavilion in Bournemouth, and we congratulate the architects and the town on their fine achievement and acquisition. In the rural districts we note with especial pleasure the very charming entrance lodges to Moundmure Manor at Preston Candover. The buildings I have referred to are the work of members of the Institute outside our area, and it is with especial pleasure that I refer to works of our own members that have come under my notice. We congratulate Colonel Gutteridge on the commencement of the new buildings for the University of Wessex, and we congratulate Mr. Roberts on Drayton Council School at East Cosham, which was the subject of such complimentary notice in *The Architect and Building News* in May



last. The new pier entrance by Mr. Cooper Poole, necessitated by the widening of the road in consequence of Southampton dock extension, is of interest architecturally and a striking contrast to the old building. Other buildings of note and interest in Southampton and the neighbourhood designed by members of our Association are: Warren's new front in the High Street, the Co-operative Society's new premises in Shirley Road, the Children's Hospital extension, King Edward's School pavilion, some very pleasing houses in Upper Hill Lane, and the excellent layout and well-proportioned and dignified houses and shops of the Swaythling housing scheme, and Glebe Court and Orchard Way. In the Bournemouth area important buildings have been completed in connection with the Roman Catholic Elementary School, paying patients' wards at the Royal Victoria and West Hants Hospital, St. Clement's Parish Hall, and the boys' home at the Russell-Cotes Nautical School at Parkstone.

My reference to the foregoing is not intended to be an exhaustive enumeration of all the buildings of repute in this district. Nor do I suggest that all the noteworthy works by members of our Association are confined to the neighbourhoods referred to. But you will remember that it was suggested at our last annual meeting that the president might be notified of works of merit within our area. A reminder was sent to the various districts, but only a few such notifications have been made, and therefore my references are limited, because it is not practicable to visit all districts in order to ascertain where new buildings have been erected. The days have long passed when architects were unable to see and appreciate merit in the work of their contemporaries and competitors. In these more enlightened days there is a sympathetic comradeship and mutual appreciation. This is, to a great extent, the outcome of the development of the Allied Societies and the goodfellowship generated in the architectural schools. We are now able to compete in the best possible spirit, and we look to one another for inspiration in our profession, and co-operation in the pursuit of our ideals. For this reason I would urge again what Mr. Ansell so ably put to us in his address at the opening of the exhibition at Bournemouth, namely, the importance and the individual duty of members to make some contribution to our annual exhibitions in the form of drawings or photographs of their own executed works. These exhibitions are of unquestionable mutual value, but their value is proportionately increased or decreased with the greater or smaller number of contributors.

This mutual responsibility in connection with our commissions is a reminder of another responsibility, which we ought to recognise, to our less fortunate brother members of the profession, and here I wish to interpose a reference to the Architects' Benevolent Society. I do not think it necessary to remind you of the object and aims of this Society, but I take this opportunity to call your attention to the urgent need for immediate help in the form of additional subscribers, in order that the work of the Society may be carried on. The Society has recently issued an appeal, signed by Mr. Walter Tapper, Mr. Maurice Webb, and Sir Charles Nicholson, for the co-operation of all Associations in securing for the Benevolent Society an improved and sounder financial status. Mr. McArthur Butler, of Bournemouth, has been appointed by our Council as our local honorary secretary, A.B.S., for this area.

The proposal for the development of the Royal Institute of British Architects and its Allied Societies, upon which we voted during the year, has been approved by a very large majority of votes cast, and we look expectantly to the realisation of this scheme for the extension and increase of the usefulness of the Institute, not only to its members, but also for the unification and consolidation of the profession, and for the benefit of the general public and the advancement of architecture.

## SOUTH WALES INSTITUTE OF ARCHITECTS

### OFFICIAL VISIT TO THE WELSH NATIONAL MUSEUM.

Instead of their usual Annual excursion and "ladies' day" to some outside place of interest, the Institute decided to accept the invitation to pay an official visit to the National Museum of Wales at Cardiff on Thursday, 10 October. About 100 members of the Institute and their ladies were present at a very enjoyable function. The party were received at the Museum by Dr. Cyril Fox, Director, and Mr. A. A. Lee, Secretary, with Mr. A. Dunbar Smith [F.R.I.B.A.], the architect of this famous building, who conducted them over the present Museum and the important additions to it which are now in course of construction. The planning, internal detail and fittings of the various departments were greatly admired, and the architect paid a generous tribute to the high standard of work which had been done by the contractors throughout.

Tea was kindly provided by the Museum authorities, and in extending a welcome to the visitors Dr. Fox made special reference to the great interest which local architects had taken in the Museum and the importance of ensuring a continuation of such valuable co-operation in future years.

Mr. T. Alwyn Lloyd, F.R.I.B.A., the President of the Institute, expressed thanks for the hospitality shown and referred to their pleasure in having this opportunity of renewing their friendship with Mr. Dunbar Smith and congratulating him on the success of his work. Mr. J. Herbert Jones, F.R.I.B.A. (Swansea) (Vice President), Mr. Percy Thomas, F.R.I.B.A., Mr. Walter Rosser, F.R.I.B.A. (Newport) and Mr. W. S. Purchon, A.R.I.B.A., also spoke.

## THE ULSTER SOCIETY OF ARCHITECTS.

Professor Patrick Abercrombie, M.A., F.R.I.B.A., Lever Professor of Civic Design in Liverpool University, gave an address last night in the headquarters of the Ulster Society of Architects, College Square North, on "Town Planning Legislation for Northern Ireland." There was a large attendance, including many members and officers of the Corporation. The Minister of Finance, the Right Hon. H. M. Pollock, D.L., presided.

Mr. E. R. Kennedy, F.R.I.B.A., president of the society, said that was the first public meeting they had held in their new headquarters, and he took the opportunity of welcoming those present, and expressing the hope that they would attend future meetings. It was their intention to have lectures on architectural subjects and also exhibitions of drawings.

Professor Abercrombie said someone had remarked that the Town Planning Act enabled one to plan many things, but not a town, and the fact was that it allowed them to plan suburbs. To be fully valuable it needed to be expanded to deal with the country and contracted to deal with the built up areas of towns. The Act dealt primarily with individual authorities, and regional planning was outside its scope. There was regional planning, but it was in the nature of reports by groups of local authorities.

What was needed was a wider form of planning on national lines. In England they had begun at the wrong end. They began with the unit and were working up to the national scheme, but they should have started with the main ideas and on big lines. There were great road schemes and great electrification schemes, which were really on a national basis, but they were not part of a national plan. They ought to be thought of as a part of the natural development of the country. The logical sequence was to have national planning, regional planning for large areas such as counties, and finally town planning for individual authorities.

Professor Abercrombie said the English Bill dealt with sanitation, which really meant the health of the people; with amenity, and with convenience. He went on to explain the provision of the measure, and referred to zoning, the newest of the powers in town planning. Zoning gave power to prescribe the charac-



ter of buildings and their situation. The power given was very arbitrary, and it was indeed a definite interference with the liberty of the individual in the interests of the community. The height of buildings could be settled, and such a matter as the density of buildings, or the number of houses to be allowed per acre. Advertisements could be controlled better this way than by any other way, because it was part of a general scheme. Natural features, such as trees, could be preserved, and there was also the important question of the control of design of buildings. Little use has been made of this power in England. There was power to refer all designs to an advisory committee which had the assistance of a consultative board of architects. Designs could be submitted in the rough so that time might not be lost and expense incurred in preparing plans which would only be rejected.

Speaking of the urban problem, Professor Abercrombie said a Bill should apply to developed as well as undeveloped land, because if not, its powers would only have one-third or a half of their value.

For rural planning it was necessary to include large areas under control, for no one knew where building would take place. It was said to have to plan the countryside, but if they did not it would be destroyed. What was needed was some light and easily adjusted form of control. A difficulty arose in England as to what was a reasonable density for houses in rural areas.

A density of twelve houses to the acre was ridiculous because it would permit ribbon development without let or hindrance. The tendency now was to separate land into three categories—urban, suburban, and country land—and to allow full control of the country land to the local authority. The thing had to be tackled reasonably, because they did not want to stop the building of houses; they wanted them built in groups so that they might have decent sanitary conditions and fall in with amenity. It had been proved, too, that the shanty question could not be dealt with satisfactorily by by-laws.

The Ministry of Transport had power, when making new roads, to acquire more land than was wanted for the road, and this power, if exercised, would give control over the actual frontage. Another power, the use of which would be valuable in preventing ribbon development, was to compel those who built houses on an existing road to pay road costs, just as those who built on a new road had to pay.

People sometimes thought town planning was a very expensive business, but that was not so. It was economic, and the actual cost was very slight—perhaps one fifth of a penny for a town scheme. In England there had not been great claims for compensation, and on the positive side there was a saving through economy of development. Town planning tended to stabilise land values, a very important thing. At present many beautiful places fell in value because of the juxtaposition of unimprovable property. "In a word," concluded the lecturer, "town planning is an economic proposition, and not an extravagance."

#### THE BICENTENARY OF JOSIAH WEDGWOOD.

Designs in competition are invited for a Wedgwood Vase to be made in commemoration of the Bicentenary of the Birth of Josiah Wedgwood, which will be celebrated in 1930.

The jury, consisting of Mr. Philip Connard, R.A., Mr. W. Reid Dick, A.R.A., Mr. H. S. Goodhart-Rendel, F.R.I.B.A., Mr. Frank H. Wedgwood, will award to the designs they consider first, second, and third in merit.

Prizes of £100, £50, and £25, respectively.

The prize-winning designs will become the property of Messrs. Josiah Wedgwood and Sons, Ltd., who reserve the right to execute the designs placed second and third, as well as the winning design.

The vase is intended as a centrepiece, and may be either a simple vessel decorated in relief and colour, or an architectural composition embodying ornamental adjuncts in the

round. It should not exceed eighteen inches in height, though to this dimension not more than six inches may be added for a pedestal or plinth. The decoration is to be by means of ornament applied to a ground of contrasting colour.

Designs, packed and plainly marked outside, "Bicentenary Vase Competition," should be addressed to the Secretary, Messrs. Josiah Wedgwood and Sons, Ltd., Etruria, Stoke-on-Trent, and must be received at that address not later than Monday, 28 April, 1930.

#### BUILDING MATERIALS BUREAU.

The Building Materials Bureau is situated in the Architectural Association's premises in Bedford Square. Its object is to provide a centre where materials and fittings appertaining to buildings may be inspected and information obtained on all the latest manufactures. The exhibits in the Bureau include decorative materials, asbestos cement goods, bricks and ceramic materials, electrical goods, fabrics, flooring materials, glass, metal-work of all types, plywoods brick fittings, etc. The Bureau is open from 10 a.m. to 6 p.m. (Saturdays 1 p.m.)

#### ELECTION OF STUDENTS R.I.B.A.

The following were elected as Students at the meeting of the Council held on the 21st October 1929.

- ALDRIDGE: ROWLAND DE WINTON, Bankton, Lower Kingswood, Surrey.  
 ALLSTON: JAMES THOMAS, 14, Glisson Road, Cambridge.  
 ANDERSON: WILLIAM GEORGE DEANE, 2, Glendower Place, London, S.W.7.  
 APPLETON: FRANK, "Swithland," Kettering Road, Moulton, Northampton.  
 BAELEY: AILWYN GEOFFREY, Alverne Hay, Penzance.  
 BEBRIDGE: EDWARD WALTER, 24, Fortiamere Avenue, Muswell Hill, N.10.  
 BOB: KENNETH DIXON, c/o Ross and Macdonald, Beaver Hall Hill, Montreal, Canada.  
 COOPER: JOHN FERGUSON, 39, Knighton Drive, Leicester.  
 CUTLER: DUDLEY GAROON, 3, The Close, Blackheath.  
 DAVE: MULSHANKER BALASHANKER, c/o Gregson Bailey and King, Chartered Architects, Chartered Bank Building, Fort, Bombay, I.  
 DAY: BENJAMIN IVOR, 320 Wick Road, Brislington, Bristol.  
 DEMUTH: RONALD FITZMA, Pitcairn, Southbourne, Bournemouth.  
 ELLIS: ELIZABETH MARY, 17 Stafford Terrace, Campden Hill, W.8.  
 EXELL: KENNETH, 2 Barnaby Street, Langsett Road, Sheffield.  
 FORD: RICHARD AILWYN LAVINGTON, Firwood, Long Ashton, Nr. Bristol.  
 FRANKLIN: HERBERT JAMES, "Newstead," Nightingale Road, Rickmansworth, Herts.  
 GIBSON: ALEXANDER GEORGE, 34 Vichingo Drive, Eastbourne.  
 GREENAWAY: GEORGE FRANCIS, 34 Lancaster Road, Eccles Old Road, Pendleton, Manchester.  
 HANSHIRE: CECIL CHARLES, 31 Mercers Road, London, N.19.  
 KELLEY: DOUGLAS, Newtown, Stanhope, Co. Durham.  
 KINGSFORD: GEORGE MONAGHAN, Birken Trees, Kingswood, Tadworth, Surrey.  
 LEDESMA: JUDITH GERTRUDE, 42 Marryat Road, London, S.W.19.  
 MARSH: JOHN DAVID TAYLOR, "Scrivenon," Speldhurst, Kent.



- MARTINEAU: DENIS FREDERICK, Goodwyn's Place, Dorking, Surrey.  
 McMULLIN: ALEXANDER LAWRENCE, 32 Evelyn Mansions, Carlisle Place, Victoria Street, S.W.1.  
 MISTRY: RATANJI RASTANJI, The Regis Bungalow, opp. Marine Lines Station, Queens Road, Bombay.  
 NICKSON: RICHARD SCHOLFIELD, Hinderton Lodge, Neston, Cheshire.  
 RUSSELL: RICHARD DREW: Snowhill, Nr. Broadway, Warrs.  
 STENCE: BASIL, 82 Thirlstone Road, Edinburgh.  
 STORES: DAVID DOMINIC SCOTT, 1 Mulberry Walk, London, S.W.3.  
 SUTHER: CHANDULAL BHIMRAJ, Gangshu, Raghunath Building, Cloth Market, Delhi, India.  
 TOMLINSON: HAROLD, 14 Trumpington Street, Cambridge.  
 WARD: JOHN PALEY, Cherry Garth, Christchurch, Newport, Mon.  
 WHISTON: ROBERT NOEL, "Cast Glows," Macaulay Drive, Lincoln.  
 WHITE: NORMAN JOSEPH SCHOFIELD, 97 Crompton Road, London, S.W.7.

## Notices

### THE SECOND GENERAL MEETING.

The Second General Meeting of the Session 1929-30 will be held on Monday, 18 November 1929, at 8 p.m., for the following purposes:—

To read the Minutes of the First General Meeting, held on Monday, 4 November 1929; formally to admit members attending for the first time since their election.

To read the following paper: "The Design of Science Buildings," by Mr. Alan E. Munby, M.A. Cantab. [F.].

### EXHIBITION OF THE WORK OF THE LATE BERTRAM GROSVENOR GOODHUE [HON. CORR. MEMBER].

Through the kindness of Professor William Emerson [Hon. Corr. Member], Director of the Department of Architecture, Massachusetts Institute of Technology, a collection of pen and pencil drawings by the late Bertram Grosvenor Goodhue has been lent to the R.I.B.A. for exhibition. The Exhibition will open on Monday, 18 November, and close on Saturday, 30 November, and will be open daily between the hours of 10 a.m. and 8 p.m. (Saturdays 5 p.m.).

### CONDITIONS OF CONTRACT.

In answer to many inquiries made by members regarding the recognised Form of Contract, the minute of the General Meeting (Business) held on 10 June 1929, is reprinted below for information:—

"RESOLVED that this meeting of the R.I.B.A. after full consideration of the terms of the proposed draft of the New Form of Contract now again submitted as an amendment of the existing and agreed 1909 Form of Contract, is unable to accept the same, but concurrently renews its offer to reconsider the amendment of the 1909 Form where necessary."

### THE ROYAL GOLD MEDAL.

The Council propose to submit to His Majesty the King the name of Mr. Percy Scott Worthington, M.A. Oxon, Litt. D., F.S.A. [F.], as a fit recipient of the Royal Gold Medal for the year 1930.

### THE R.I.B.A. LONDON ARCHITECTURE MEDAL, 1929.

The attention of members is drawn to the Form of Nomination and the conditions, subject to which the award will be made, for a building completed within the County of London during the three years ending 31 December 1929, issued separately with the current number of the JOURNAL. Any member of the Royal Institute is at liberty to nominate any building for consideration by the Jury.

The Nomination Form should be returned to the Secretary R.I.B.A. not later than 18 February 1930.

The Medal for the building completed between 1926 and 1928 will be presented to Messrs. Easton and Robertson, F.F.R.I.B.A., for the Royal Horticultural Society's New Hall, Greycoat Street, Westminster, at the General Meeting of the R.I.B.A. to be held on 6 January 1930.

### ELECTION OF MEMBERS.

2 DECEMBER 1929.

An Election of Members will take place at the Business General Meeting to be held on Monday, 2 December. The names and addresses of the Candidates (with the names of their proposers) found by the Council to be eligible and qualified for membership according to the Charter and Bye-laws and recommended by them for election are as follows:—

#### AS HON. FELLOW (1).

HOWARD DE WALDEN AND SEAFORD: Lord, Thomas Evelyn Scott-Ellis, 37 Belgrave Square, S.W.1. Proposed by the Council.

#### AS HON. ASSOCIATE (1).

STOTT: SIR PHILIP SIDNEY, Bart., F.S.A., Stanton Court, near Broadway, Gloucestershire. Proposed by the Council.

#### AS HON. CORRESPONDING MEMBER (1).

WANSCHER, Vilhelm, M.A., Professor of the History of Art in the Royal Academy at Copenhagen; Honorary Member of Akademisk Arkitektforening at Copenhagen; Member of the Kongelig Norske Videnskabs Selskab at Trindhjem; Cav. Corona d'Italia; Armålegade 4, Copenhagen. Proposed by the Council.

#### AS FELLOWS (20).

- BROAD: MALCOLM CHARLES [A. 1918], Calle 25 de Mayo 395, Montevideo, Uruguay. Proposed by John A. Cheston and the Council under Bye-law 3 (d).  
 COWDRYOT-DALE: FREDERICK CHARLES [A. 1921], 31 Marina, St. Leonards-on-Sea, Sussex. Proposed by Robert Atkinson, J. Murray Easton and Howard Robertson.  
 HARRIS: PHILIP CAPES [A. 1914], Zanzibar, East Africa; 31 Arundel Avenue, Sefton Park, Liverpool. Proposed by Professor C. H. Reilly, H. V. Lancaster and Ernest Gree.  
 HOOPER: CHARLES OWEN [A. 1920], Ching Ming Building, S.A.D. No. 3, Hankow, China. Proposed by Frank S. Reynolds and the Council under Clause C (i), Section IV, Charter 1925, and Bye-law 3 (d).  
 MACFARLANE: GEORGE GORDON, B.Sc., M.C., [A. 1921], 7 Cartwright Street, S.W.1; 41 Acadia Road, N.W.S. Proposed by Charles Holden, Thos. S. Tait and C. Cowles-Vorsey.  
 MORTY: ROBERT JAMES HUGH [A. 1922], 21 Great Peter Street, Westminster, S.W.1; 329 Queen's Road, St. John's Wood, N.W. Proposed by A. Heron Ryan Tennis, Ernest G. Cole and C. Harold Norton.  
 MULLINS: GEOFFREY THOMAS [A. 1918], 5 Verulam Buildings, Gray's Inn, W.C.1; "Whincot," Holbrook Lane, Chislehurst, Kent. Proposed by W. Harding Thompson, Henry V. Ashley and Professor A. E. Richardson.



**NEWMAN**: PERCIVAL CORNEY, F.S.I. [d. 1902], 32 Walbrook, E.C.4., 74 Clifden Road, Twickenham. Proposed by H. Percy Monckton, H. Alexander Pelly and W. F. Foster.

**NICHOLSON**: Frederick William [A. 1912], 2 Dewey Avenue, Aintree, Liverpool. Proposed by T. E. Eccles, D. G. McInosh and Arnold Thornely.

**STOCKDALE**: WILLIAM [A. 1907], 81 Howard Street, North Shields; 5, Windsor Gardens, North Shields. Proposed by Lieut.-Col. A. K. Tucker, J. C. Maxwell and J. J. Hill.

**STRICKLAND**: HARTLEY CLARENCE WILFRID [A. 1919], County Offices, Brecon; "Brynallun," Cradoc Road, Brecon. Proposed by A. F. A. Trehearne, John Saxon Snell and Sir Banister Fletcher under Clause C (i), Section IV, Supplemental Charter 1925.

**VERNON**: FREDERICK AUSTIN [d. 1920], 82 Mortimer Street, W.; "Catsack," 185 Tube Hill, S.W.2. Proposed by H. Courtenay Constantine, W. E. Riley and Ernest B. Glanfield.

And the following Licentiates who have passed the qualifying Examination:—

**CLARKE**: GODFREY L., Piece Hall Yard, Bradford, Yorks; 11 Castle Road, Kingley, Yorks. Proposed by Sydney D. Kitson, Sir Banister Fletcher and Louis Ambler.

**SALMOND**: WILLIAM, F.S.I., 15 South Tay Street, Dundee; 17 Adelaide Place, Dundee. Proposed by George P. K. Young, Thos. M. Cappon and Charles G. Soutar.

**TANNER**: DOUGLAS GROVER, Great Western Buildings, Livery Street, Birmingham; 79 Westfield Road, Edgbaston, Birmingham. Proposed by Herbert Buckland, Professor A. E. Richardson and A. T. Butler.

And the following Licentiates who are qualified under Section IV, Clause 4 C (ii) of the Supplemental Charter of 1925:—

**DAVIES**: CHARLES GILBERT, 4 Avenue Edward VII, Shanghai, China; 63 Route de Say Zong, Shanghai, China. Proposed by Geo. A. Johnson, E. F. Bothwell and George L. Wilson.

**GUNSON**: ERNEST, F.S.I., 10 Matsden Street, Manchester; "The Orchard," Elm Road, Didsbury, Manchester. Proposed by J. W. Beaumont, Harry S. Faithurst and Francis Jones.

**HAMILTON**: GEORGE DOUGLAS, 23, Wormwood Street, E.C.2.; 16 The Drive, Walthamstow, E.17. Proposed by Osborn C. Hills, H. P. Burke Dowding and Gilbert H. Lovegrove.

**JENNINS**: THOMAS, J.P., Arcade Buildings, Station Street, Burton-on-Trent; Croxall Hall, near Lichfield. Proposed by George M. Eaton, A. T. Butler and H. Tatham Sudbury.

**LITTLE**: EDWIN FLEWSTER WAUGH, 12 Eldon Square, Newcastle-upon-Tyne; "The Little Garth," Hexham, Northumberland. Proposed by William Tweedy, Charles S. Errington and W. H. Wood.

#### AS ASSOCIATES (81).

**ASHWORTH**: HENRY INGHAM, B.A. [Passed five years' course at Manchester University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], "The Homestead," Poynton, Cheshire. Proposed by John B. Gass, Francis Jones, and J. Theo. Halliday.

**BAKER**: FRANCES (MISS) [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], 49, Lewisham Hill, S.E.13. Proposed by Howard Robertson, J. Murray Easton and W. R. Davidge.

**BARTHOLOMEW**: GEORGE (Final), 8 Campfield Street, Falkirk, Stirlingshire. Proposed by T. Harold Hughes, James Lochhead and A. N. Malcolm.

**BECK**: RICHARD THEODORE [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], 4 Mount Avenue, Ealing, W.3. Proposed by Howard Robertson, Alexander G. Bond and J. Murray Easton.

**BRADLEY**: FRANK (Final), Croft House, Charles Street, Bolton, Lancs. Proposed by Joseph Foy, Harry S. Faithurst and Ernest J. Pomery.

**BREAKWELL**: JOHN [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], 1 White Bear Place, New End Square, Hampstead, N.W.3. Proposed by Maurice Chesterton, Robert Atkinson and J. Murray Easton.

**BROWN**: ROBERT SMART [Passed five years' course at Robert Gordon's Colleges, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice], 47 Hamilton Place, Aberdeen. Proposed by James B. Nicol, Robert G. Wilson, Jun., and the Council.

**RUTIMAN**: JAMES WARDROP [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], c/o Clonmore, Dyke Road Drive, Brighton. Proposed by Howard Robertson, Basil Sutton and J. Murray Easton.

**BUNYAN**: JAMES [Passed five years' course at Glasgow School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], 42 Highfield Drive, Kelvindale, Glasgow, W.2. Proposed by T. Harold Hughes, John Watson and Thomas L. Taylor.

**COLMAN**: LEONARD JOHN (Final), "The Old House," Marlborough Road, Hampton-on-Thames. Proposed by A. F. A. Trehearne, Robert Atkinson and George Coles.

**COOTE**: LIONEL FRANCIS RUSSELL (Final), The Cottage, North Park, Gerrards Cross. Proposed by Maurice Chesterton, A. G. R. Mackenzie and Herbert Wigglesworth.

**CRABTREE**: WILLIAM, Dip. Arch. (Liverpool) [Passed five years' course at Liverpool University School of Architecture. Exempted from Final Examination after passing the Examination in Professional Practice], 49 Windor Road, Doncaster, Yorks. Proposed by Professor C. H. Reilly and the Council under Bye-law 3 (d).

**CROSBY**: EDMUND LIONEL (Final), 11 Hillfield Avenue, Wembley, Middlesex. Proposed by Harry Redfern, W. H. Hubbard and Brook Kitchen.

**CROCKSHANK**: ALEXANDER JAMES [Passed five years' course at Robert Gordon's Colleges, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice], 15 Gannochy Green, Gannochy, Perth. Proposed by James B. Nicol, Robert G. Wilson, Jun., and J. A. O. Allan.

**CULPIN**: CLIFFORD EWART (Final), 904, Cranbrook Road, Hford, Essex. Proposed by W. R. Davidge, Arthur Kean and Ernest G. Allen.

**DROLAIKKE**: GANESH BHUKARI [Special Examination], Office of Government Architect, Public Works Department, New Delhi, India. Proposed by Professor A. E. Richardson, C. Lovett Gill and Arthur Stratton.

**DOUGLAS**: PERCIVAL HOWARD [Passed five years' course at Robert Gordon's Colleges, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice], Herons Gate, Eastbury Road, Watford, Herts. Proposed by James B. Nicol, Robert G. Wilson, Jun., and J. A. O. Allan.

**DOW**: JOHN SIM [Passed five years' course at Robert Gordon's Colleges, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice], Dunolly, Young Street, Craigie, Perth. Proposed by James B. Nicol, Robert G. Wilson, Jun., and J. A. O. Allan.

**DUNN**: RICHARD RUSSELL ANTHONY (Final), 10, Frederick



- Street, Sunderland. Proposed by Thomas R. Milburn, W. Milburn and W. Milburn, Jun.
- ECCLESTON:** JAMES HENRY [Final], 58 North Worple Way, Mortlake, S.W.14. Proposed by H. L. Thornely, Charles Holden and Lionel G. Pearson.
- EDEN:** WILLIAM ARTHUR [Passed five years' course at Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], 16 Balmoral Terrace, Stockton-on-Tees. Proposed by Professor C. H. Reilly, Professor Lionel B. Budden and F. T. Penty.
- ELLIS:** HAROLD GEORGE, B.Arch. (Liverpool) [Passed five years' course at Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], 16 Sandiways Road, Wallasey, Cheshire. Proposed by Professor C. H. Reilly, Professor Patrick Abercrombie and Professor Lionel B. Budden.
- FENNEMAN:** LEONARD [Special Examination], "Clifton," Kenton Lane, Kenton, Middlesex. Proposed by Thos. E. Scott, Frederick R. Horns and E. P. Wheeler.
- FOLEY:** HUGH VALENTINE [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], 72, Oakley Street, Chelsea, S.W.3. Proposed by Evelyn Simmons, Howard Robertson and J. Murray-Easton.
- FORDS:** IAN [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], "The Shieling," Chalfont St. Giles, Bucks. Proposed by J. Edwin Forbes, J. Duncan Tate and J. J. Joass.
- FRASER:** JAMES MILNER [Final], Singapore Improvement Trust, Municipal Offices, Singapore. Proposed by Alexander Gordon, Major P. Hubert Keys and C. G. Boucher.
- GARRETT:** ALFRED JOHN WILTON [Special Examination], 5 Fillebrook Avenue, Leigh-on-Sea. Proposed by F. C. R. Palmer, H. F. Murrell and G. W. Lord.
- GIBB:** JOHN JAMES BAYNE [Final], 126 Forth Street, Pollokshields, Glasgow. Proposed by Hamilton Neil, T. Harold Hughes and John Watson.
- GOLDING:** ALFRED [Final], 42 Rosebery Avenue, Westoe, South Shields. Proposed by Thomas R. Milburn, R. H. Morton and W. Milburn, Jun.
- GREENWOOD:** FRED [Final], 234 Gloucester Terrace, Hyde Park, W.2. Proposed by Sir Edwin L. Lutyens, Albert J. Thomas and Sir Banister Fletcher.
- HALL:** FREDERICK GEORGE ALFRED [Final], 108 Hambalt Road, Clapham Park, S.W.4. Proposed by Professor A. E. Richardson, C. Lovett Cill and H. F. Murrell.
- HARDING:** HERBERT JOHN, A.R.C.A. [Special Examination], 46 Beauchamp Place, Brompton Road, S.W.3. Proposed by Professor Beresford Pite, Professor William G. Newton and F. B. Nightingale.
- HATCHER:** BASH AINAWORTH [Final], Tudor Cottage, Rushmere, Ipswich. Proposed by E. T. Johns, John Petter and Percy F. Warren.
- HELM:** WILLIAM REX [Final], 32 Eastbourne Street, Oldham. Proposed by Isaac Taylor, Arthur J. Hope and Ernest Simister.
- HOLT:** A. NIVILLE [Passed five years' course at the Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], "Mortan," Graham Road, West Kirby, Cheshire. Proposed by Professor C. H. Reilly, S. G. Hewitt and the Council.
- HODGKIN:** GEORGE CECIL [Passed five years' course at the Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], 4 Curzon Road, Hoylake, Cheshire. Proposed by Sir Edwin L. Lutyens, Albert J. Thomas, and Professor C. H. Reilly.
- JENKINS:** GILBERT LAWRENCE MARTIN [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing the Examination in Professional Practice], 38 Elm Park Road, Chelsea, S.W.3. Proposed by Gilbert H. Jenkins, P. D. Hepworth and Howard Robertson.
- KING:** WILLIAM HENRY [Final], 106 Hendon Way, Golders Green, N.W.2. Proposed by J. J. Joass, Sydney D. Kitson, and James Parish.
- KNIGHT:** GEORGE WILLIAM [Special Examination], 146 Underhill Road, East Dulwich, S.E.22. Proposed by C. Stanley Peach, E. Stanley Hall and J. Stanley Heath.
- KNOWLES:** HERBERT JAMES, Dip.Arch. (Liverpool) [Passed five years' course at the Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], 25 Craven Avenue, Plymouth, Devon. Proposed by John Clarke, Professor C. H. Reilly and Professor Lionel B. Budden.
- LAMB:** WILLIAM [Final], Saxon Tower, Windsor Castle, Berkshire. Proposed by Walter S. A. Gordon, James S. Gibson and John Jerdan.
- LANE:** HOWARD ROSS [Final], "Bramshaw," King's Avenue, Christchurch, Hants. Proposed by A. Edward Shervell, Edward F. Knight and Sydney Tugwell.
- LEWIN:** CAPTAIN HARRY ALMOND [Special Examination], Public Works Department, Colombo, Ceylon. Proposed by Henry J. Chetwood, Owen C. Little and T. O. Foster.
- LIGHTFOOT:** BRIDRICK ST. CLAIR, Dip.Arch. (Liverpool) [Passed five years' course at the Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], c/o Messrs. Kendall and Mansergh, Rhodes Building, St. George Street, Cape Town. Proposed by Professor C. H. Reilly, Professor Patrick Abercrombie and Professor Lionel B. Budden.
- LOVETT:** WILLIAM FRANCIS BENJAMIN [Passed five years' course at the University of London School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], 34 Cartwright Gardens, Tavistock Square, W.C.1. Proposed by Professor A. E. Richardson, Arthur Stratton and A. Alban H. Scott.
- LOWIS:** ALEXANDER JOHN GEORGE [Special Examination], 153 King's Road, Chelsea, S.W.3. Proposed by R. Allsbrook Hinds, A. Foster and George A. Mitchell.
- LOWTHER:** ANTHONY WILLIAM GEORGE [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], The Old Quarry, Ashted, Surrey. Proposed by Howard Robertson, C. H. James and Robert Atkinson.
- LUBINSKI:** NORMAN FRANCIS [Final], "Loretta," Sedgemore Avenue, Camps Bay, Cape Town, South Africa. Proposed by H. J. Brownlee, F. K. Kendall and John Perry.
- MACDONALD:** ERIC ALEXANDER HECTOR [Final], 234 Gloucester Terrace, Hyde Park, W.2. Proposed by Sir Edwin L. Lutyens, Laurence M. Gorch and Albert J. Thomas.
- MACDONALD:** GEORGE SUTHERLAND [Passed five years' course at Robert Gordon's Colleges, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice], 21 Moray Street, Elgin, Morayshire. Proposed by John Wittet, James B. Nicol and J. A. O. Allan.
- MCCLAREN:** IAN HASTINGS [Passed five years' course at Robert Gordon's Colleges, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice], Abbotsville, Cults, Aberdeenshire. Proposed by James B. Nicol, J. A. O. Allan and George Watt.
- MANSFIELD:** JOHN LESLIE STEPHEN, B.Arch. (Sydney) [Passed



- five years' course at Sydney University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice), c/o Australian Bank of Commerce, Ltd., 62 Bishopsgate, E.C.2. Proposed by Major Hubert C. Corlette, Sir Charles A. Nicholson and T. J. Rushton.
- MANT**: **CEDR. GEDRGE** [Final], 8 Lansdowne Road, Muswell Hill, N.10. Proposed by Thos. E. Scott, T. P. Bennett and E. P. Wheeler.
- METCALFE**: **JOHN GEORGE** [Passed five years' course at the Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], 36 Cedar Grove, Lodge Lane, Liverpool. Proposed by Haswell Grayson, Leonard Barnish and Professor C. H. Reilly.
- METZ**: **MORRIS DE** [Final], 34 Upper Berkeley Street, W.1. Proposed by Arthur J. Davis, Charles H. Gage and T. P. Bennett.
- MITCHELL**: **THOMAS** [Passed five years' course at the Glasgow School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], 62 Dalhousie Road, Barnhill, Broughty Ferry, Angus. Proposed by T. Harold Hughes, David B. Hutton and Thomas L. Taylor.
- MORGAN**: **BRODRICK JOHN MORRIS** [Final], 28 Sanderstead Avenue, N.W.2. Proposed by Professor A. E. Richardson, Arthur Stratton and W. Braxton Sinclair.
- MORRIS**: **WILLIAM ALEXANDER** [Special Examination], Hill Croft, Weaverham, Cheshire. Proposed by Arthur Brocklehurst, Halstead Best and Francis L. Lamb.
- MORRISON**: **ROBERT JAMES** [Passed five years' course at Robert Gordon's Colleges, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice], 24 Cedar Place, Aberdeen. Proposed by James B. Nicol, Robert G. Wilson, Junr., and J. A. O. Allan.
- MOWBRAY**: **WILLIAM BAWDEN** [Final], 36 Albion Road, Sutton, Surrey. Proposed by C. E. Varndell, Professor A. E. Richardson and Oswald P. Milne.
- NAPOLITANO**: **FREDERICK** [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], 159 Halliburton Road, St. Margarets-on-Thames. Proposed by Howard Robertson, J. Murray Easton and Robert Atkinson.
- PLANT**: **WALTER GEOFFREY** [Passed five years' course at the Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], Hall Cross Cottage, Doncaster. Proposed by Professor C. H. Reilly, Professor Patrick Abercrombie and Professor Lionel B. Budden.
- POULTON**: **DENIS**, Dip. Arch. (Liverpool) [Passed five years' course at the Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], 2 Wellington Square, Oxford. Proposed by Professor C. H. Reilly, Professor Lionel B. Budden and R. Fielding Dodd.
- REDWOOD**: **REGINALD SETMOCK** [Final], 56 Market Place, Chippenham, Wilts. Proposed by W. J. Stenner, Sir Frank W. Wills and C. F. W. Dening.
- SACNDERS**: **GEORGE SLEITH** [Final], 53 Park Lane, Leeds. Proposed by G. W. Atkinson, G. H. Foggitt and H. S. Chorley.
- SCAMMELL**: **RODNEY QUINTON** [Final], 706 Coventry Road, Small Heath, Birmingham. Proposed by Baron C. S. Underhill, C. E. Bateman and G. Salway Nicol.
- SHUWAN**: **WILLIAM WYLLIE CLARK** [Passed five years' course at Robert Gordon's Colleges, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice], 14 Calypso Road, Aberdeen. Proposed by James B. Nicol, J. A. O. Allan and Robert G. Wilson, Junr.
- SIMPSON**: **ROBERT ALISON CRIGHTON**, B.A. (Cantab.) [Passed five years' joint course at the Cambridge University School of Architecture and the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], Greyshields, Kirkstall Lane, Leeds. Proposed by Howard Robertson, James B. Dunn and Theodore Pyfe.
- SPENCELY**: **HUBB GREVILLE CASTLE**, B.Arch. (Liverpool) [Passed five years' course at the Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], 9 Weymouth Street, W.1. Proposed by Professor C. H. Reilly, Professor Patrick Abercrombie and the Council.
- STATHAM**: **COLIN WALTER** [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], Rookery Wood House, Loudwater, Rickmansworth. Proposed by Howard Robertson, Oswald P. Milne and J. W. Stanley Burmester.
- SUMMERSON**: **JOHN NEWENHAM**, B.A. (Arch.) [Passed five years' course at the University of London School of Architecture. Exempted from the Final Examination after passing the Examination in Professional Practice], 8 Royal Terrace, Edinburgh. Proposed by Professor A. E. Richardson, C. Lovett Gill and John Begg.
- SVENIS**: **CAROL GEORGE** [Final], 35 Hogarth Hill, N.W.11. Proposed by Professor A. E. Richardson, C. Lovett Gill and E. Hadden Parkes.
- TABER**: **EDWIN ATKINSON** [Final], 12, Hilton Road, Potternorton Park, Leeds. Proposed by G. H. Foggitt, Colonel Albert E. Kirk and H. S. Chorley.
- TAMKIN**: **ARTHUR LEELE** [Final], "Paraiso," St. Efrides Road, Torquay. Proposed by Norman G. Bridgman, W. N. Couldrey and A. S. Parker.
- THOMPSON**: **GERALD LAOPOLD** [Final], 18 Willoughby Road, Hampstead, N.W.3. Proposed by W. Henry White, T. Hansford White and F. N. Weightman.
- TOMLINSON**: **HAROLD**, M.A. (Cantab.) [Special Exemption], 14, Trumpington Street, Cambridge. Proposed by Theodore Pyfe, Howard Robertson and J. Murray Easton.
- TURNER**: **CHARLES AUSTIN CHARLEWOOD** [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], 18 Crossways, Sutton, Surrey. Proposed by Howard Robertson, Robert Atkinson and J. Murray Easton.
- WAILES**: **PHILIP ARTHUR** [Passed five years' course at the University of London School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], Knotty Green, Beaconsfield, Bucks. Proposed by Professor A. E. Richardson, Arthur Stratton and C. Lovett Gill.
- WALKDEN**: **JOHN STANLEY** [Passed five years' course at Manchester University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], Kenmore, Dales Avenue, Whitefield, Manchester. Proposed by Herbert H. Brown, J. T. Halliday, and John Swarbrick.
- WAUGH**: **DAVID STARK REID**, Dip. Arch. (Glasgow) [Passed five years' course at Glasgow School of Architecture. Exempted from Final Examination after Passing Examination in Professional Practice], 1 Maitland Avenue, Langside, Glasgow, S.1. Proposed by Norman A. Dick, James Miller and John Watson.
- WILLIAMS**: **GEORGE** [Final], Ferres Chambers, Whitefriargate, Hull. Proposed by H. Andrews, Frederick J. Horth and G. Dudley Harbron.



## Queries and Replies

[A large number of questions on points of professional practice and technical interest are addressed to the Practice and Science Standing Committees and to other Committees of the Institute.]

The Council, on the recommendation of the Science Standing Committee, have decided to adopt the procedure of publishing such queries in the JOURNAL when on matters of general interest, together with the replies of those members who, having special knowledge and experience of the particular questions, have been asked to express their opinions upon them. The scheme is based upon that adopted by the Surveyors' Institution.

The identity of the member seeking the information will not be disclosed, but the replies published will be signed by the members who have supplied them.]

### Query No. 1.

LONDON BUILDING ACT, 1894, PART 8, SECTION 87 (6).  
EXTERNAL WALLS WITH FOOTINGS PROJECTING INTO  
ADJOINING OWNERS' PREMISES: PAYMENT OF FEES.

I am acting as architect for a Cartage Contractor for his new depot. Along the back of his land he is erecting a row of stables. In order to do this I am taking down the fence, which is six feet high, and is the property of the Cartage Contractor, and erecting a brick wall ten feet above ground level with footings projecting into the adjoining owners' premises. I have served the usual Form C—"External Walls with footings projecting into Adjoining Owners' Premises," issued by the Royal Institute of British Architects, for this purpose, and have received a letter from a firm of solicitors in which they state that my form has been handed to them by the Adjoining Owner and asking me to guarantee payment of their (the Solicitors') fees and also the fees of a firm of Surveyors whom they will instruct to protect the interests of the Adjoining Owner. Should the Building Owner pay either the Adjoining Owners' Solicitors' or Surveyors' fees in this case? There is no question of right of light or encroachments in this case.

### Replies to Query No. 1

A.

Part VIII of the London Building Act, 1894, was enacted to allow neighbouring owners of party structures to settle their differences respecting the rights therein given them through their Surveyors without the intervention of lawyers, and the procedure is laid down under Section 91.

It is not the custom to recognise any charges of an adjoining owner's solicitor, but it is usual for the building owner to pay the reasonable fees of the adjoining owner's surveyor, which are arranged in the award which follows the due appointment of the respective surveyors.

It would be unwise to guarantee any fees.

J. DOUGLAS SCOTT [A.I.].

B.

Under Section 94 of the London Building Act, 1894, the Adjoining Owner has a right to serve a requisition on the Building Owner to give security for the payment by him of all expenses and costs in respect of the work as may be payable by the Building Owner; and the Building Owner upon receipt of the same may serve a counter requisition upon the Adjoining Owner for security for payment by him of all expenses and costs as may be payable by the Adjoining Owner.

Though there is no mention in the Act as to which of the two parties is liable for the costs of a party wall Award, it is the usual practice in the profession that the fees of the Adjoining Owner's Surveyor should be paid by the Building Owner, but if the Adjoining Owner chooses to employ a Solicitor on his behalf (which is not required by the Act), it is not usual that these fees should be payable by the Building Owner.

If, therefore, the Adjoining Owner insists upon security for his Solicitor's fees, the Building Owner should issue his counter requisition, and if the two Surveyors of the Building Owner and the Adjoining Owner do not agree in the drawing up of the Award as to the question of payment of the Solicitors' fees, the matter must be settled by the Third Surveyor, and according to his decision the Solicitors' fees will be payable by one or other of the two parties.

Whether the word "security," as mentioned in the Act, and the word "guarantee," which occurs in the query, are synonymous, I cannot say, but I think the practical interpretation is the same.

J. ALAN SLAYTE [F.].

## Competitions

### ABERYSTWYTH: PROPOSED WINTER GARDEN AND BAND PAVILION.

The Aberystwyth Corporation invite architects to submit, in open competition, designs for a Winter Garden and Band Pavilion.

Assessor: Mr. Arnold Thornely [F.].

Premiums: £100, £70 and £30.

Last day for receiving designs, 1 January 1930. Conditions of the competition may be obtained on application to the Town Clerk, Town Hall, Aberystwyth. Deposit £2 2s.

### ACCRINGTON: NEW POLICE AND FIRE STATIONS.

The Accrington Corporation invite architects to submit, in open competition, designs for new Police and Fire Stations.

Assessor: Mr. Herbert J. Rowse [F.].

Premiums: £250, £150 and £100.

Last day for receiving designs, 28 February 1930. Conditions of the competition may be obtained on application to the Town Clerk, Town Hall, Accrington. Deposit £2 2s.

### DUMFRIES: PROPOSED TOWN HALL AND MUNICIPAL CHAMBERS.

The Provost, Magistrates and Councillors of the Burgh of Dumfries invite architects, resident or practising in Great Britain, to submit, in open competition, designs for a Town Hall and Municipal Building which it is proposed to erect upon an area of ground, being the site of the old Town Hall and Municipal Offices in Buccleuch Street, Dumfries.

Assessor: Sir George Washington Browne, P.R.S.A.

Expenditure: £45,000.

Date of delivery: Noon on 7 December 1929.

Premiums: £300, £200, and £100.

Conditions of the competition and block plan of the site may be obtained on application to the Town Clerk, with a deposit by crossed cheque of £1 2s.

### GUILDFORD: NEW MUNICIPAL BUILDINGS.

The Guildford Corporation propose to invite local architects to submit, in competition, designs for new municipal buildings.

Assessor: Mr. T. S. Tait [F.].

Premiums: £50 and £25.

[Conditions are not yet available.]



### KINGSTON-UPON-HULL: NEW STREET FROM PARAGON STATION TO BEVERLEY ROAD.

The Hull Corporation invite architects to submit schemes in competition for the façades of a new street and openings to adjoining streets to be formed from the Paragon Station to the Beverley Road.

Assessor: Sir Reginald Blomfield, R.A., Litt.D., M.A., F.S.A., P.P.R.I.B.A.

Premiums: £750, £350 and £150.

Latest date for receiving designs: 12 (noon), 30 November 1929.

Conditions of the competition may be obtained on application to the Town Clerk, Guildhall, Hull. Deposit, £1 18.

### LIVERPOOL: PROPOSED PIER HEAD IMPROVEMENTS.

The Liverpool City Council propose to offer premiums of 1,000 guineas and 500 guineas in connection with a competition for the improvement of the amenities of the Pier Head.

[Conditions are not yet available.]

### SWANSEA: MUNICIPAL BUILDINGS.

The Swansea Corporation invite architects to submit, in open competition, designs for new municipal buildings.

Assessor: Mr. Henry V. Ashley, V.-P.R.I.B.A.

Premiums: £750, £500, £300 and £200.

Last date for receiving designs: 18 January 1930. Conditions of the competition may be obtained on application to the Town Clerk, Town Hall, Swansea. Deposit £2 2s.

### ANZAC MEMORIAL BUILDING, SYDNEY, N.S.W.

The Trustees of the Anzac Memorial Building invite competitive designs for an Anzac Memorial to be erected in the City of Sydney, New South Wales.

The qualification of competitors is defined in the conditions of competitions as follows:—

"The competition is limited to Australians who are legally qualified as architects in New South Wales or who are legally qualified to practice architecture outside of New South Wales provided that no competitor shall be employed as architect to the work until he has been duly registered as a legally qualified architect in New South Wales or until other arrangements, satisfactory to the Trustees and to the Board of Architects of N.S.W., shall have been made.

"Nothing in these conditions shall preclude the association of an Australian sculptor with a competitor either during the competition or in the execution of the work.

"For the purpose of this competition 'Australian' shall mean a natural born British subject who has practised or worked in Australia either as a principal or an assistant. Provided that no Australian soldier within the meaning of Part 4 of the Australian Soldiers' Repatriation Act 1920 shall be excluded by this clause."

The competition will be conducted in two stages; the closing date for the first stage is 24 January 1930. The cost of the Memorial is to be £75,000. The conditions of

competition have been approved by the Institute of Architects of New South Wales.

Conditions of competition may be obtained from the office of the Trustees of the Anzac Memorial Building, 3rd floor, Wingello House, Angel Place, Sydney, or from the offices of the Institutes of Architects in the various Australian States, or from the office of the Agent-General for New South Wales, Australia House, London.

### OLYMPIA, LONDON: "PAVILION OF LIGHT."

The *Daily Mail*, in conjunction with the General Electric Company, Ltd., is organising a competition in connection with the lighting, heating, decorating and furnishing, and electrical equipment of the rooms of a "Pavilion of Light," which will be erected at the Ideal Home Exhibition at the Olympia, London, in March 1930.

Jury of Assessors:

Sir Edwin Lutyens, R.A., F.S.A. [F].

Sir Duncan Watson, J.P., M.I.E.E.

Mr. Philip Connard, R.A.

Mr. Oliver P. Bernard.

Mr. Douglas G. Tanner [L].

Mr. G. G. Wornum [F].

Premiums: For each room, 100 guineas, 25 guineas, 20 guineas.

Last day for receiving designs: 14 December 1929.

Conditions of the competition may be obtained on application to the *Daily Mail* Electrical Competition, Carmelite House, E.C.4.

## Members' Column

### CHANGE OF OFFICE ADDRESS

MR. FRANK ROBOUR, A.R.I.B.A., has moved his office from 43 Bedford Row, to Piccadilly. His new office address is 107 Jermyn Street, S.W. 1. Telephone: Gerrard 1152.

### MR. FRANK A. COYLE.

MR. FRANK A. COYLE [L], of 26 Newmarket Street, Consett, Co. Durham, has opened a branch office at 11 Saville Row, Newcastle-on-Tyne. Telephone: Central 8093.

### APPOINTMENT VACANT.

REQUIRE, Eastern Counties, all-round provincially trained Architectural Assistant.—Reply Box 3448, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

### PARTNER WANTED.

ARCHITECT AND SCULPTOR, 25 years in successful practice, West of England, requires Partner.—Apply Box 1019, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

### PARTNERSHIPS WANTED.

A.R.I.B.A., practising architect (46), with wide experience of School, Church and restoration work, Domestic (Illustrated Country Life), Multiple Shop Work, etc., thorough knowledge of quantities and practice routine, desires Partnership in busy firm. Not afraid of work. Please state premium, if any, required.—Box 3119, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

ASSOCIATE, young, energetic, experienced, requires partnership in well-established practice, Southampton district, or South Coast. Some capital available.—Apply Box 2010, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

A.R.I.B.A., University Graduate (1st Class Honors), 30 years of age, seeks partnership. Has acted as assistant to Sir Edwin Lutyens as well as in several first-class provincial offices. Good draughtsman. Has made R.A. drawings for leading architects. Good at most outdoor sports. Has played for two counties.—Apply The Secretary R.I.B.A., 9 Conduit Street, London, W.1, who knows applicant.



ASSOCIATE requires appointment in London with view to partnership. Eight years' School and Office experience. Capital available.—Apply Box 2510, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

FELLOW R.I.B.A., wide experience, own practice, London for many years, and specialised in work that has been superseded by Government action. Capable. Master of all details pertaining to busy practice. Desirous of joining established practice as partner. Capital available.—Box 1110, c/o The Secretary R.I.B.A., 9, Conduit Street, London, W.1.

F.R.I.B.A. with extensive experience is desirous of entering into partnership with another keen and well-established Architect, with a view to sharing responsibilities, and increasing clientele. Some capital available.—Apply, in first instance to Box 2109, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

ASSOCIATE, with American and London experience on many different types of buildings, with academic and practical qualifications, young, energetic, travelled, requires partnership with an established firm in London.—Apply Box 4949, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

#### DISSOLUTION OF PARTNERSHIP.

The partnership between Messrs. Simmons and Cutbush having been dissolved, Mr. Evelyn Simmons will continue his practice at Palace Chambers, Bridge Street, Westminster, S.W.1. Mr. Cutbush's address will be c/o The Architectural Association, 36 Bedford Square.

#### OFFICE ACCOMMODATION.

SMALL single office to let, next to Piccadilly Circus, in architect's suite of offices; second floor. Moderate rent, inclusive of light, heat, cleaning, use of telephone, etc.—Apply Box 2810, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

ASSOCIATE with capable staff and good offices in Bloomsbury is willing to allow use of his office by provincial members for correspondence and interviews.—Apply Box 1210, c/o The Secretary, R.I.B.A., 9 Conduit Street, London, W.1.

ASSOCIATE has spare room available, rent £45 inclusive, good address near Charing Cross.—Apply Box 9214, c/o The Secretary, R.I.B.A., 9 Conduit Street, London, W.1.

## Minutes I

SESSION 1929-1930.

At the Opening General Meeting of the Session, 1929-1930, held on Monday, 4 November 1929, at 8.30 p.m.

Sir Banister Fletcher, F.S.A., President, in the Chair.

The attendance book was signed by 64 Fellows (including 24 Members of Council), 31 Associates (including 2 Members of Council), 7 Licentiates, 1 Hon. Fellow, 7 Hon. Associates, and a large number of visitors.

The minutes of the Ordinary General Meeting held on 24 June 1929 having been published in *THE JOURNAL*, were taken as read, confirmed, and signed as correct.

The following members attending for the first time since their election were formally admitted by the President:—

Allen Foxley [F].

Kenneth Andrew Begg [A].

The Secretary announced that the Council had nominated for election to the various classes of membership the candidates whose names are published in this issue of *THE JOURNAL* for election on 2 December 1929.

The President delivered the Inaugural Address of the Session.

On the motion of the Right Hon. Lord Monk Bretton, C.B., Chairman of the London County Council, seconded by Sir William Llewellyn, K.C.V.O., President of the Royal Academy, and supported by Mr. Arthur Keen, a vote of thanks to the President for his address was passed by acclamation.

The President briefly expressed his acknowledgments.

The President unveiled and formally presented to the Royal Institute the portrait of Mr. Walter Tapper, A.R.A., F.S.A., Past President, painted by Sir William Orpen, R.A., and moved

a vote of thanks to the painter. Sir William Orpen and Mr. Walter Tapper briefly expressed their thanks to the meeting.

The President announced that the Council propose to submit to His Majesty the King the name of Mr. Percy Scott Worthington, M.A. Oxon., Litt.D., F.S.A. [F], as a fit recipient of the Royal Gold Medal for the year 1930.

The meeting terminated at 9.50 p.m.

### ARCHITECTS' BENEVOLENT SOCIETY

(Insurance Department).

#### HOUSE PURCHASE SCHEME

(for property in Great Britain only).

The Society is able, through the services of a leading Assurance Office, to assist an Architect (or his client) in securing the capital for the purchase of a house for his own occupation, on the following terms:—

#### AMOUNT OF LOAN.

Property value exceeding £666, but not exceeding £2,500, 75 per cent. of the value.

Property value exceeding £2,500, but not exceeding £4,500, 66½ per cent. of the value.

The value of the property is that certified by the Surveyor employed by the Office.

RATE OF INTEREST, 5½ per cent. gross

#### REPAYMENT.

By means of an Endowment Assurance which discharges the loan at the end of 15 or 20 years, or at the earlier death of the borrower.

#### SPECIAL CONCESSION TO ARCHITECTS.

In the case of houses in course of erection, it has been arranged that, provided the Plan and Specification have been approved by the Surveyor acting for the Office, and the amount of the loan agreed upon, and subject to the house being completed in accordance therewith, ONE HALF of the loan will be advanced on a certificate from the Office's Surveyor that the walls of the house are erected and the roof on and covered in.

NOTE.—In 1928, over £20,000 was loaned to architects under this scheme, and as a result over £100 was handed to the Benevolent Fund.

If a quotation is required, kindly send details of your age, next birthday, approximate value of house and its exact situation, to the Secretary Architects' Benevolent Society, 9 Conduit Street, London, W.

Members sending remittances by postal order for subscriptions or Institute publications are warned of the necessity of complying with Post Office Regulations with regard to this method of payment. Postal orders should be made payable to the Secretary R.I.B.A., and crossed.

It is desired to point out that the opinions of writers of articles and letters which appear in the *R.I.B.A. JOURNAL* must be taken as the individual opinions of their authors and not as representative expression of the Institute.

#### DATES OF PUBLICATION IN SESSION 1929-30.

1929.—9, 23 November; 7, 21 December; 1930.—11, 25 January; 8, 22 February; 8, 22 March; 12, 26 April; 10, 24 May; 7, 21 June; 12 July; 9 August; 20 September; 18 October.



# Journal of the Royal Institute of British Architects

THIRD SERIES

VOL. XXXVII. No. 2

23 NOVEMBER 1929

## Contents for 23 November 1929

	Page
ST. JOHN'S, WESTMINSTER: Water Colour Drawing by A. B. Yeates [P.], F.S.A. . . . .	<i>Frontispiece</i>
WINCHESTER PALACE: BUILT BY SIR CHRISTOPHER WREN FOR CHARLES II, 1683-5. By Arthur T. Bolton [P.] . . . .	43
VARNHEM ABBEY, SWEDEN. By Lj. E. Wilhelm [A.] . . . .	46
PIRANESI AND LORD CHARLEMONT. By Grahame B. Tubbs [A.] . . . .	54
REVIEWS:	
THE COTTAGES OF ENGLAND. By C. E. A. Voysey [P.] . . . .	56
DIE ARCHITEKTUR DER DEUTSCHEN RENAISSANCE. By Louis Ambler [P.] . . . .	56
SPANISH GARDENS. By H. C. Hughes [A.] . . . .	57
THE LAW OF FIXTURES. By W. E. Watkin [P.] . . . .	58
THE LIBRARY . . . . .	58
CORRESPONDENCE:	
WASHING BUILDINGS IN LONDON. By Professor A. P. Laurie . . . . .	59
GREATER HIPPIAS. By Paul Ogden . . . . .	59
DRAWINGS AND SHEETS BY THE LATE BRITISH GROSVENOR GALLERY: Opening of Exhibition in the R.I.B.A. Galleries . . . . .	60
THE PROPOSED CHANCING CROSS BRIDGE . . . . .	61
LIBRAL: A MANCHESTER ANCIENT LIGHT CASE. By P. J. W. . . . .	62
THE MEANING OF "COMPLETION" . . . . .	64
THE UNIVERSITY OF CAPE TOWN . . . . .	64
ALLIED SOCIETIES:	
ESSEX, CAMBRIDGE AND HERTS SOCIETY OF ARCHITECTS . . . . .	65
SOUTH WALES INSTITUTE OF ARCHITECTS . . . . .	65
WEST YORKSHIRE SOCIETY OF ARCHITECTS . . . . .	66
OBITUARY:	
JAMES MACINTYRE HENRY . . . . .	67
THEODORE RIDLEY SAUNDERS . . . . .	67
R.I.B.A. PROBATIONERS . . . . .	67
ELECTION OF STUDENTS R.I.B.A. . . . .	68
NOTES FROM MINUTES OF COUNCIL . . . . .	68
NOTICES . . . . .	69
COMPETITIONS . . . . .	70
MEMBERS' COLUMN . . . . .	71
MINUTES . . . . .	71
A.B.S. SCHEME OF INSURANCE . . . . .	72





St. John's, Westminster  
From a water colour drawing by A. B. Yeates, F.S.A.





ENGRAVED VIEW OF WINCHESTER PALACE  
From Milner's *History of Winchester*

## Winchester Palace: Built by Sir Christopher Wren for Charles II, 1683-5

BY ARTHUR T. BOLTON [F.].

The Royal Institute is to be congratulated on a very valuable addition to the Library,\* the gift of Mr. S. J. Wearing [F.], of Norwich. This is an MS. volume, which must have belonged to Sir Christopher Wren, and contains records of the building of his Palace for Charles II at Winchester.

It is doubtful if it ever was an official book, as it seems rather, from its somewhat casual and incomplete state, to be a private record book of documents and contracts relative to the building of this Palace. At the same time, from references in the Greenwich Hospital Minutes, it is certain that a book of this kind was officially kept, in which contracts were ordered, on signature, to be entered. This Winchester book contains some 300 pages, of which about two-thirds are blanks, inter-

spersed, as it has been begun in several sections simultaneously, on some system of arrangement which is not now very clear.

A section is devoted to reports, valuations, and agreements, made for the purchase of properties. The old Castle of Winchester, surrounded by great ditches, and roughly oval in form, had been sold in lots, or perhaps was in the hands of squatters, and these had to be bought out separately, to a total value of £7,180.

This preliminary business seems to have given Wren a good deal of trouble, as he had to journey specially to Winchester, in company with Mr. Fisher, who was acting for the Treasury. The Mayor and Corporation, naturally desirous of a Royal resident in their city, seem to have forwarded the business in every way, exposing the rapacity of some of the owners.

The motive of the King, in his project of building a

\* *Winchester (Royal) Palace. Building contracts. Signed Chr. Wren and probably his MS. Ms. 10, u.p. [1682-85].*



miniature Versailles at such a distance from London, is explained by historians as arising from a general disgust with recent metropolitan events, such as the execution

close relations with the French Court, in view of their insidious advice to Charles to govern without a Parliament.



FIG. 1.—AGREEMENT TO TAKE TIMBERS

of several of his particular friends, victims of the involved religious and political intrigues of the day. The secret treaty of Portsmouth, renewed in 1678, was comparatively recent, and Winchester may have possessed advantages as a centre for the private maintenance of

Urgency was required of Sir Christopher Wren, and he seems to have zealously responded, for, in the brief period before the sudden death of the King on 6 February 1685, an astounding amount of heavy work had already been done. The structure was far enough ad-







vanced to have a roof over it, when the order to suspend the work was given by James II on his accession.

The accumulated materials were later on drawn upon for the building of Hampton Court Palace (see *Wren Society*, vol. iv, pp. 23 and 29). The value in 1689-91 of stores drawn from Winchester was nearly £1,200. Say £6,000 of our money to-day.

One of the most curious documents in the MS. book is an agreement, signed by the master tradesmen to take timber from the New Forest, as felled for this building by Royal Warrant, in part payment of debts upon it so long overdue to them (Fig. 1).

An idea of the involved finance of Wren's building operations has been given in connection with the work immediately following at Hampton Court (1688-1694). These Winchester contracts will be given in Vol. vii. of the *Wren Society* for 1930, and will serve as a common model of those in use in his office. They will be a useful supplement to the specimen accounts already given.

A letter from Sir Christopher Wren, "Winton April 3 1684," addressed to Phillip Parker, Esq., H.M. Paymaster-General, deals with the disposal of £2,000 (Fig. 2).

It seems extraordinary that Wren could keep in mind all the complicated details, arising from his proportional system of doling out the delayed Treasury Grants, according to the state of each man's debt, the transactions extending over ten, or perhaps even, twenty years. The extent, number, and urgency of the works he was engaged upon would of themselves have seemed to render such minute attention to each impossible (Fig. 3).

The next document illustrated here is a record of a letter, 6 February 1687/8, which Wren must have written with a full sense of its sly humour. He begins: "May it please yr. Lordpps," and proceeds to invite them to interpret their own warrants. They have omitted the word "hewadge," but he kindly surmises, as you cannot cart felled trees without hewing them, their "Lordpps" must therefore have had that operation in mind.

Accounts were very personal in those days. Agar is to be charged, or not, his estate being now represented by his widow, for the money was given to him and he was to account for it by the terms of the Warrant, by which he personally received it, as though it were his own.

Towards the end of the eighteenth century this had grown into a scandal, as some recipients loaned out the money, as though it was their own capital, and if they had made a bad debt complications arose when the money was called.

Wren must have regarded Winchester Palace as an important opportunity; drawings for it are mentioned in the Sale List of 1749 (Lot 42; see p. 4 vol. iii, *Wren Society*), and it is to be hoped that some day they

will be recovered. On inquiry it appears, however, that they long ago passed out of the family of the first purchaser, and, if still existing, their whereabouts is quite unknown.

The leading illustration hitherto available has been

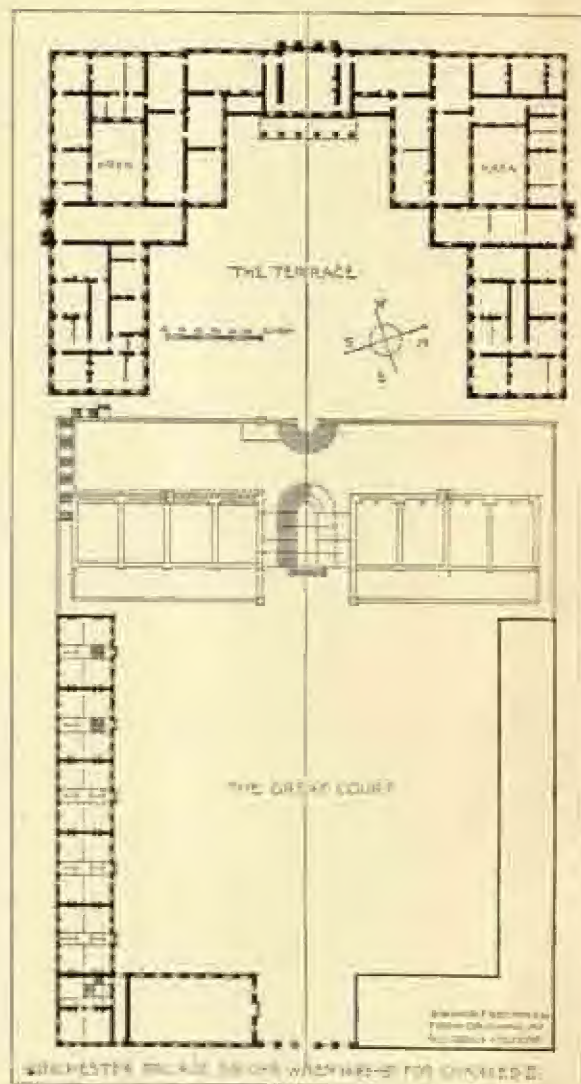


FIG. 5.

the engraving in Milner's *History of Winchester* 1798 (Fig. 4). This plate, the author states, is drawn from an original elevation and plan by Sir Christopher Wren, lent to him for the purpose of his book. It was then in a bad state, and his plate is admittedly a restoration. The statue in the centre is an artist's licence, and the dome is a supposition, filling in a hopelessly damaged piece.

In the All Souls' Collection is a general plan and



(Fig. 5) a foundation plan. I have checked the plan by a site plan, made when the French prisoners were lodged at the Castle, and some fencing to their airing grounds had to be set up. This outline of the building is in the Record Office. At the British Museum, in the King's Library is a drawing (Fig. 6) which gives the north and west elevations. It is a very ordinary office drawing, made by some one like Banks, or Oliver perhaps, but it agrees well enough with the only available plan.

There is a descriptive list of the accommodation, said to be by Wren himself, for the principal floor, in which

their introduction in the Wren additions to Hampton Court. The distribution of the rooms round these two Courts at Winchester is an insoluble problem at present. One visitor implies that the chapels adjoined these courts and were on the ground floor, as is the case in fact at Hampton Court, but if this is assumed the arrangement of the rooms in the Queen's Apartment will not work, as numbered in Wren's list. It would appear that the Queen, Catherine of Braganza, had but a limited share of the principal floor, as compared with the Duke and Duchess. A spare apartment is mentioned but not assigned by Wren, and the occupant intended can be

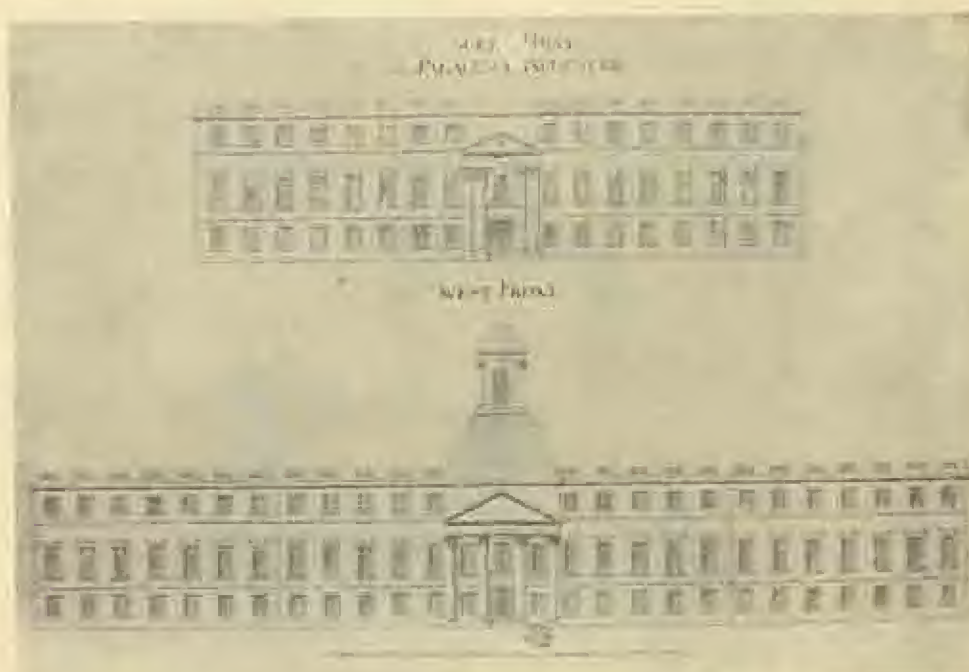


FIG. 6.—ELEVATION: WINCHESTER PALACE  
From a drawing in the British Museum

the rooms are given Roman numerals, but with his key plan missing it is practically impossible to make it agree with the only plan we have. I have tried all ways, with the help of Hugh May's Windsor and Wren's Hampton Court plans, but the leading points are missing. It is not even certain whether the two chapels, Church of England and Roman Catholic, were on the ground or first floors; that is, whether they were of one or two storeys in height. Such records by visitors as exist show all the uncertainty of the layman's account of a building in point of plan. The position of the staircases is also very uncertain.

A leading feature of the plan is the use of internal courts or areas, of which there are two, thus anticipating

selected by those well acquainted with the memoirs of the period.

The dogmatic Fergusson, in his reference to Sir Christopher Wren, dismisses Winchester Palace as a "barrack," for which purpose, he says, it is very suitably occupied. If the design, however, imperfectly as it is now known, is interpreted in the light of the immediately succeeding work at Hampton Court, it will be seen that it has a genuine Wren character. The brickwork, upon which great pains were expended, must have possessed the same charm. There is nothing left at Winchester now, as the barrack buildings on the site are a complete rebuilding, simply using some of the stonework of the great order, which is about three feet



in diameter. The detail of this is rich and good, and the great portico, about 63 feet in width, would have been a splendid feature, if it had been completed and preserved.

An idea of the intended dome, 30 feet above the roof, can perhaps be formed from the small original drawing by Wren of the first design for Greenwich, dating 1695-96, and so only about ten years later in date than Winchester. This drawing will be given in facsimile in Plate xxi, vol. vi, *Wren Society* for 1929.

The square mansard dome of the B.M. elevation with its monstrous turret (Fig. 6) is a carpenter's version of a small Wren sketch, and cannot possibly have been so intended.

Milner's view (Fig. 4) shows a different arrangement of the forecourt to that in the All Souls' plan, one which makes possible the "Design for Stables," marked X, as given in *Wren Society*, vol. v, Plate XXXI. This is a very pleasing design, and it can plausibly be assigned to Winchester. It is quite plain that the All Souls' plan is an early and not final one.

The accounts of the Palace by visitors in 1722 and 1724, as well as the note in the "Parentalia," based on Camden's *Britannia*, do not help us very much, as has been explained above, so that the internal arrangements must remain uncertain, unless some of the missing drawings can be recovered.

It may be assumed that the rooms were more in the

English tradition, freer in disposition and less subdivided, than the new Apartments that Dutch William so cordially approved of at Hampton Court. It would appear to be the case that the Winchester windows were not to be sashes, but the older English casements in solid wood frames, as was also the case in May's works at Windsor. It seems to be the case that only a few isolated sash windows were used, prior to the building of Wren's additions to Hampton Court. As the frames were solid with wheels, or runners, prior to the use of hollow cased sash boxes, the point is not quite so clear, as it could otherwise be. The timber at Winchester is to be 6 by 4, and "to stand edgewayes," the principal windows being 11 feet by 4 feet 8 inches. This suggests a central mullion and upper transome, arranged in the usual English way. They did not trouble to specify the rebates and labours in those days, for a matter of 130 windows costing ten shillings per piece.

It is hoped that this notice will interest members in the work of the Wren Society. The Winchester documents will be given in full in vol. vii for 1930, together with all that can be gathered of the Wren additions to the other Royal Palaces of his time. The subject is exceedingly difficult, resulting from the many subsequent alterations; but the bringing together of isolated drawings has already, in the case of Greenwich Hospital, made clear much that has hitherto been obscure, and this result will become increasingly evident with every succeeding volume of the Society's work.





## Varnhem Abbey, Sweden

BY LL. E. WILLIAMS [A].

Some thirty miles due west of the little port of Hjo on Lake Vettern, in an open valley at the foot of the Billing Hills are the remains of the Cistercian Abbey of Varnhem. The ruins of the conventual buildings have been cleared, and the accumulations of earth and rubbish removed down to the original floor levels. The Abbey church has also undergone a thorough restoration, carried out with great

tercians were invited to Sweden in 1143 when a small band of missionary monks from Clairvaux settled on the eastern shore of Lake Vettern and founded the monastery of Alvestra. Varnhem was an offshoot from Alvestra, for in 1150 some of these monks crossed the lake and settled in that neighbourhood. They were led by a Frenchman who became the first Abbot of the new House. It would

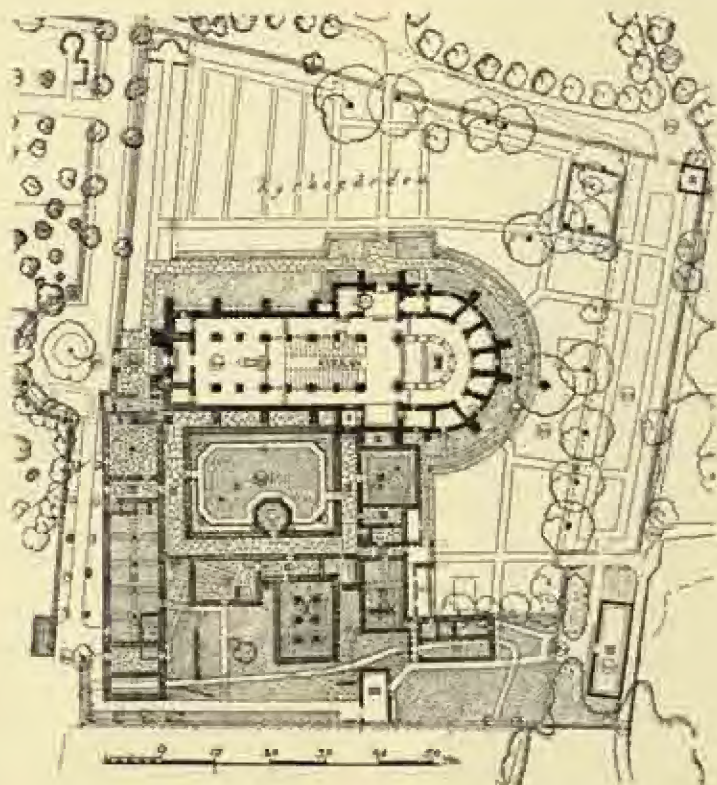


FIG. 1

- |   |                                     |                                     |                                   |
|---|-------------------------------------|-------------------------------------|-----------------------------------|
| 1. Birger Jarl's Tomb                             | 6. Hall with Central Row of Pillars | 11. ?                               | 16. Lavatories with Water Conduit |
| 2. Mortuary Chapel of Magnus Gabriel de la Gardie | 7. Entrance                         | 12. The Chapel House                | 17. ?                             |
| 3. The Cloister Garth                             | 8. Kitchen                          | 13. Small Rooms                     | 19. Modern Museum                 |
| 4. The Cloister Walk                              | 9. Lobby to Kitchen and Refectory   | 14. Passage to Gardens              | 20. Modern Building               |
| 5. The Lavatory                                   | 10. The Refectory                   | 15. Large Room or (?) Abbot's House |                                   |

care and judgment—a difficult task, as it has suffered much from earlier "restorers." The building as it stands to-day presents many features of interest not usually found in Cistercian churches.

Christianity came late to Sweden. The same year in which William I landed in England, Sweden was distracted by civil war between the Pagan and Christian parties, and it was not until the reign of Eric IX that militant Christianity was finally successful. The first Cis-

te was in accordance with the Cistercian practice to begin a new abbey in a humble way, and the original buildings were probably of wood. The period was one of constant civil war until 1222, and in 1230 these first buildings were entirely destroyed by a disastrous fire.

The present church was begun in 1250 under the patronage of the great Birger Jarl whose relation to the royal house of Sweden was very similar to that of Pepin with the decaying Merovingian dynasty. When this noble





FIG. 2.—RECONSTRUCTION OF WEST FRONT, CIRCA 1260  
Sketch from a Drawing by Herr Axel Forssén

who had made himself master of the country died in 1266, the Abbey church was so far completed that he was able to be buried in front of the "Altar of the Holy Rood" in the nave. This tomb, which for many years had been lost, was rediscovered in 1920, and the fragments of the sculptured monumental slab which had been removed and broken up were restored and replaced in their original position. It represents three figures in high relief; the centre figure is crowned while the two outer have the appearance of tonsured monks; all three figures have long draperies of a classic type, the ends of which in two of the figures are caught up in a fold over the left arm. The work is typically Romanesque, and must either have been imported or is the work of some foreign artist.

Throughout the ceaseless disturbances of the thirteenth and fourteenth centuries, the Abbey, together with the House at Alvestra and the later foundation of St. Bridget at Vadstena appear to have flourished undisturbed, but in 1394, four years before the Union of the Three King-

doms, Varnhem was again destroyed by fire, though the destruction this time was not complete, and as far as the church was affected must probably have been confined to the outer roof as the vaulting was not damaged.

The blow was severe enough, however, to prevent financial recovery, and the Abbey gradually declined until in 1527 it was confiscated to the Crown. In 1531 Laurentius Petri was consecrated the first Protestant Archbishop of Sweden at Upsala, and when in 1544 the Roman Catholic Church was abolished, the Abbey church became, as in England, at the Reformation, the parish church of the neighbourhood under the new religion.

During the Danish wars the church was again burnt in 1566, and appears to have remained derelict until the middle of the seventeenth century. Between 1634-74 the Chancellor, Count Magnus Gabriel de la Gardie, undertook a drastic restoration of the ruins, altering them to his idea of what a mediæval church ought to be—Sweden, too, had her Gothic revival—and the external appearance to-day is almost wholly the result of this work.

The church of 1250 was built of limestone laid in even courses with sandstone dressings and mouldings to doors and windows (Fig. 1). It was of the simplest design, devoid of towers, spires, and the present enormous buttresses which were added by de la Gardie. Contrary to the usual Cistercian practice the plan is apsidal with a ring of radiating chapels at the east end, a feature obviously copied from Clairvaux.

The present arrangement of the west front dates from the seventeenth century. Originally there was but one tower with a slight projection which finished with a pent against the nave gable (Fig. 2). The three-light west window was longer, and the doorway was placed in the west wall of the north aisle. De la Gardie raised the sill of the window, moved the doorway to a central position, built a north tower and enlarged the south tower to match it (Fig. 3). He carried up both towers, finishing them with the present roofs and small spires. On the north face of the south tower the joint between the mediæval masonry and the seventeenth century addition is clearly visible. The west door is in three recessed orders carried on small shafts with moulded caps, and the arch mouldings above are encircled at the apex and halfway down each side with a clumsy bulbous ring, copied from the bands between the

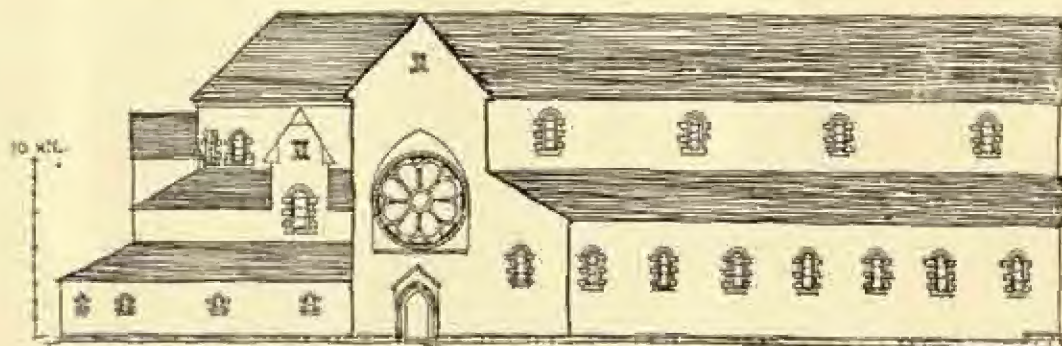


FIG. 3.—RECONSTRUCTION OF NORTH FAÇADE, CIRCA 1260  
Sketch from a Drawing by Herr Axel Forssén





FIG. 3.—WEST FRONT



FIG. 5.—NORTH TRANSEPT



FIG. 6.—SOUTH FAÇADE



FIG. 7.—EXTERIOR OF APSE





FIG. 8.—VAULTING SHAFT AT CORNER BETWEEN NAVE AND NORTH TRANSEPT

vertical length of marble shafts surrounding a thirteenth century Gothic pier.

The north façade with the transept and rose window has been little altered except for the enormous buttresses which de la Gardie built all round the church. The plain semi-circular headed windows are in the original positions (Fig. 4). The porch may have been a later addition to the transept; it is foliated with the projecting stone pent carried on two carved Romanesque columns, and is curiously like the porch in the church at Shövda, a few miles away (Fig. 5). The central wooden tower with its bulbous spire is entirely de la Gardie's work, and the present restorers have wisely left it as typical of the period.

The south façade is similar to the north except that the aisle windows are shorter, to clear the roof of the cloister walk below (Fig. 6). Between 1889-1891 a restoration was carried out with more fervour than judgment, and a large rose window was inserted in the south transept gable presumably to balance that already existing on the north; the roof of the chapter house originally must have hidden this transept almost entirely.

The apse presents several peculiar features. Here again the great buttresses are additions, but the three gables rising from the aisle wall would have broken the line of the ambulatory roof and avoided the ugly line of two semicircular roofs one above the other. Internally these gables have a bad effect, especially the eastern one, which blocks the light of the clerestory, but the design is

interesting as an attempt to solve the problem of the ambulatory lighting. (Fig. 7).

Entering by the west door one is in the Galilee common to Cistercian churches. The walls to the north and south were built in 1710 to convert the western bays of the aisles into mortuary chapels.

Beyond this Galilee the general appearance of the church has been restored almost to the original condition of 1250, except that the screen of the west end of the monks' choir is missing and modern pews take the place of the old choir stalls.

The nave is divided into seven bays by massive square limestone piers surmounted by very slightly pointed arches. The two westernmost piers on each side have small mouldings at the arch springing, but the remainder have this moulding on three sides only, the fourth side being originally concealed by the back of the monks' stalls. The monastic choir extended four bays west of the crossing, and is marked by a difference of level in the floor. The nave altar has been rebuilt, and in front of it is the restored tomb of Birger Jarl. There are no remains of any screen dividing the choir and nave.



FIG. 9.—SOUTH AISLE





FIG. 10.—CHURCH

Each alternate pier has a pilaster projecting on the aisle side which corresponds to the main transverse arches of the nave vault. This vault is brought low down on the walls, and is quadripartite, each bay of the vault embracing two bays of the nave arcade. There is no triforium, and a curious feature of the design is the placing of the clerestory windows centrally over the intermediate piers. The corbels from which the arch ribs spring are typically French in character (Fig. 8). While the nave has transverse and diagonal ribs the aisle vaults are simple groined vaults without ribs, but with transverse arches (Fig. 9).

The east end with the ambulatory and radiating chapels is a departure from the usual Cistercian plan, and may have been an attempt to reproduce that of Clairvaux. The apse does not begin until two bays east of the crossing, and while the first bay had semicircular arches struck in the normal manner, those of the record are violently stilted, and have attached to their eastern sides a heavy projecting pilaster springing from a moulded corbel above the pier cap. This pilaster carries the transverse arch of the apse, and thus the first bay of the presbytery east of the crossing has a similar vault to the nave em-

bracing the bays of the arcade below, but in this case with no clerestory window as the external gables butt against these walls. The apse has five bays supported on two octagonal and two cylindrical columns. These latter, which have the only carved caps in the apse, are shorter than the others, and the difference in height is made up by an exaggerated group of mouldings placed above the caps almost like a classic entablature (Fig. 10). The five arches of the apse are slightly less than semicircular and un moulded, and above is a blank wall terminating with a moulding and rounded corbels at the sill level of the clerestory. Only four windows light the apse, the blank space in the centre being blocked on the outside by the eastern gable. Although there are vaulting ribs the real design of this apse is that of a semi-dome pierced with four lights, the lower part of the vault not being carried at all on the back of the rib.

The presbytery is divided from the ambulatory by a low wall surmounted by a painted wooden grille. This grille, together with the reredos and the two canopied royal pews, dates from about 1650, and both the carving



FIG. 11.—AMBULATORY CHAPEL



and colour decoration are interesting examples of Swedish renaissance design.

The chapels of the ambulatory were originally nothing more than small square chambers, each lit by one semi-circular-headed window; two have been absorbed and altered and walled off as mortuary chapels, but in the seventeenth century the five eastern ones were turned by de la Gardie into cenotaphs of the mediæval Swedish kings. The Chancellor employed the Italian, Carlo Carove, to design the elaborate plaster vaults with their heavy ribs and "putti." The original vault probably remains behind the plaster as the mediæval corbels appear below the plaster acanthus leaves at the four corners. In these chapels were placed upon raised plinths sham tomb slabs carved in imitation of what de la Gardie considered to be the mediæval mode. These have no value and might with advantage have been removed in the last restoration. (Fig. 11.)

About the end of the seventeenth century the south transept was enclosed by an iron grille as the memorial chapel to the family of de la Gardie.

The ruins of the conventual buildings on the south side of the church follow the common monastic arrangement, and had a system of water drainage. All these ruins have been carefully conserved under the direction of the State Antiquary Professor Sigurd Curman and the architect, Herr Fossen, to whose monograph I am indebted for the plan and sketches of the church in 1260. The restorers have, as a rule, not added to the height of the existing walls, and any new stones which were inserted were marked R.K. (reconstructed).

Varnhem Abbey, together with the transitional Romanesque church at Skara, the ruins at Alvestra, and the great nuns' church at Vadstena, form a group of mediæval buildings which up to the present seem to have received little attention in this country.

## Piranesi and Lord Charlemont

GRAHAME B. TUBBS [A.].

The place that an artist will ultimately take in artistic history is notoriously difficult to gauge; one man will enjoy enormous prestige among his contemporaries, but will be completely ignored by future generations; another will, on the contrary, starve, but his works may sell for enormous sums in later times; there is a third class, however, in which the admiration of his own generation is echoed by posterity, and it is to this group that G. B. Piranesi belongs, as, although his reputation suffered partial eclipse during the latter part of the last century, his work is to-day as popular as it was at his death 150 years ago.

During his lifetime he was almost one of those "sights of Rome" that no Englishman on the Grand Tour could afford to miss, nor could he neglect to visit his shop in the Palazzo Tomati to buy prints to take home, to prove that he was, indeed, a *bona-fide* traveller. The extent to which Piranesi was patronised by English visitors may be verified by an inspection of almost any country-house library dating back to the middle of the eighteenth century.

The Royal Institute Library has recently acquired a small book by Piranesi which is of interest both for its beauty and rarity and for the information that it gives us about his business affairs. It is the *Lettere di Giustificazione scritte a milord Charlemont*, a small quarto volume of 28 pages with 8 etched plates, an ex-libris border and 3 etched head and tail pieces. It was published in 1757 and deals with an amusing episode in Piranesi's tempestuous life—the dedication of his great work on the Sepulchral Remains in Rome, *Antichità Romane*, to the Irish statesman, Lord Charlemont.

Like many young nobleman of the time, Charlemont was, at the age of 18, sent to live in Italy, travelling far afield and visiting, among other places, Egypt and the Greek Islands. He stayed for some years in Rome and established a reputation as a connoisseur and patron of the arts by founding the "Academy of English Professors

of the Liberal Arts"; it was due to his prominent position in artistic circles that Piranesi arranged to dedicate his forthcoming volume to him. When Charlemont returned to Ireland in 1754 he left the final arrangements in the hands of the painter, John Parker, who collected antiques and modern works for clients and whom Charlemont had put in charge of his Academy. As it turned out, he could hardly have made a worse choice, as Parker's misconduct was eventually responsible for the closing of the Academy, and his lack of sense and decency caused Charlemont to be involved in an absurd quarrel with Piranesi which would certainly not have occurred had he been able to arrange things himself, as chief among Charlemont's estimable qualities were tact and a talent for mediation.

Piranesi's original intention was to publish *Antichità Romane* in one volume, but he accumulated such a mass of material that he found it would fill four large folios instead of one; Charlemont and Parker knew of this alteration, as they had approved a revised dedication.

On the publication of the book, Parker called on Piranesi, and, on behalf of Charlemont, offered to buy prints to the value of 100 scudi (£25) and to make him a present of another 100 scudi. Piranesi considered this to be quite inadequate payment for the four dedication plates and was furiously angry with Charlemont for making an offer that he considered to be an insult. Parker evidently bungled the matter badly, and when he was unable to come to a settlement he sent one Signor A. G. to see Piranesi and to try and effect a settlement. He, however, was no more successful than Parker, but, indeed, made matters worse by showing Piranesi a letter purporting to come from Lord Charlemont, saying that if his final offer of 50 zecchini was rejected, that he (Lord Charlemont) would have Piranesi assassinated! Piranesi generously declined to believe in the genuineness of the letter, but immediately recalled the volumes already sold, erased Charlemont's name and coat of arms from





From Piranesi's *Lettere di giustificazione scritte a Milord Chaulmont* . . . , Rome 1757  
(Original frontispiece of *Antichità Romane*, Vol. 1)



From Piranesi's *Lettere di giustificazione scritte a Milord Chaulmont* . . . , Rome 1757  
(Showing his intended alterations to sections of the frontispieces of Vols. I to IV of *Antichità Romane*)



the title pages and published his letters to Charlemont, together with much reduced facsimiles of the four title pages, also other plates showing how they appeared in subsequent editions, after the erasures. These pamphlets he presented to his friends with a manuscript inscription giving the name of each recipient, possibly in his own handwriting (the R.I.B.A. copy has the inscription: "Per l'Ill.mo Signore il Sig. Abate Venuti Presid<sup>o</sup> delle Antichità Romane"). Owing to its violent tone and to the offence it occasioned to people other than those he was attacking, he was persuaded to withdraw it almost at once, which accounts for its extreme rarity. Mr. A. M. Hind, in his *Catalogue Raisonné*, mentions having seen only five copies. Until a few years ago it was in neither the Bibliothèque Nationale, nor in the British Museum, although the latter now has a copy.

In one of his letters to Lord Charlemont, Piranesi gives some interesting figures about the cost of producing his prints and of the profit he expected to make from each plate. It appears that he reckoned to take 4,000 impressions and that a print costing 2½ paoli (1s. 3d.) would produce 1,000 scudi (£250), of which his remuneration should be 300 scudi (£75), leaving £175 for the

cost of paper, printing and other expenses. To be offered £50 for dedicating the work and engraving four plates was especially galling, as he had just been given a subsidy of 1,200 scudi (£300) by the Pope without any stipulation as to dedication.

This little book tells us directly and indirectly a great deal about Piranesi's character. The impetuous and quarrelsome man is no less evident than the conscientious artist. In this, as in all his other works, he clearly enjoyed making a beautiful thing for its own sake; as to engravings of the most prosaic measured drawings, he added decorative and human touches, so in his *Giustificazioni*, which was not issued for profit, he spared no trouble to make it as beautiful as he could and lavished upon it infinite care. The reduction of the plates, from 17½ in. by 27 in. to 5½ in. by 8 in., alone was no small labour, especially as the smaller ones have nearly as much detail as the originals; the head-pieces are exquisite little etchings.

As it happens, the labour was not lost, in this case, as some of these ornamental accessories were re-used in later works; this is also true of the four title pieces themselves, as they were used in re-bitten, later "states" in the 1761 edition of his *Opere Varie*.

## Reviews

THE COTTAGES OF ENGLAND. By Basil Oliver, F.R.I.B.A. [B. T. Batsford, Ltd. London, 1929.] 211. net.

*The Cottages of England of the Sixteenth, Seventeenth, and Eighteenth Centuries*, by Basil Oliver, F.R.I.B.A., is a very charming book, tastefully and skilfully compiled and produced, showing wide and sound knowledge. It is cleverly arranged so as to indicate the most marked qualities belonging to the various counties in England with carefully and clearly described technical methods, such as, for instance, the various modes of thatching and the different kinds of material used. The illustrations are so placed as to suggest comparison of the different characteristics belonging to each district. The labour expended in selecting and collecting photographs for reproduction in the book must have been very great, as it contains 177 plates and 47 diagrams; consequently it must appeal to both professional men and laymen alike. It would have pleased the profession more had there been a greater number of figured plans, but obviously the difficulties of obtaining measured plans of old buildings are often insurmountable. We miss the mention of the old long arm stay fastener which was revived by George Devey 50 years ago and made by Wenham and Waters, of Croydon, its special value being in the fact that you could open and fix or shut the casement with one hand, and there was no possibility of its being blown out of your hand. The stay bar when the casement was closed pulled it up in two places, top and bottom, tightly against the frame. We

have to thank the Royal Society of Arts for this charming book. As Mr. Stanley Baldwin says in his foreword, Mr. Oliver "has been called upon to write this volume by his fellow members of the Executive Committee of this movement. It should be a welcome one for enthusiasts, for its illustrations demonstrate more competently than any amount of propaganda ever could the vigour of design and suitability for their purpose and setting, of the types of old cottages still to be found in all parts of the country." And lastly, we must note how strongly the principle is illustrated that all good and beautiful building is the outcome of the thorough understanding of and obedience to requirements and conditions of the locality and time, and so all foreign accent is happily made conspicuous by its absence.

C. F. A. VOYSEY [F.]

DIE ARCHITEKTUR DER DEUTSCHEN RENAISSANCE. By Carl Horst. 40. Berlin [1929]. [Propyläen-Verlag.] £1 8s.

This book of more than 300 pages contains about 230 illustrations, chiefly photographs, with a few sketches and numerous plans, but no scales. The first part (about 60 pages) deals with churches, late Gothic and early Renaissance, and the bulk of the book is devoted to domestic architecture, starting with castles and going on to town-halls and other public and private buildings. The area embraced is comprehensive, including Switzerland and the Tyrol, but not Alsace, where the architecture is typically Teutonic.

Some of the German castles are very picturesque, with their towers, turrets and many-storeyed gables, with curved and pinnacled outlines and much strap work and



carved ornament, contrasting with plain wall surfaces. The spiral staircases with vaulted soffits remind one of some of the French châteaux.

One of the most attractive town-halls is that at Schweinfurt, which has a wide central projecting wing with a carved balcony and a three-storeyed bay window in the centre of the picturesque gable terminating in an octagonal turret with an ogee roof supporting a smaller open turret, and above that a still smaller one. Another fine and unusual one is that at Paderborn, with its four-storeyed central recessed gable, flanked by two projecting double arcaded wings with rows of columned windows and one-storey curved and ornamented gables. The town-hall at Molsheim is quaint, with its double external staircase and a balcony at each end of the façade continuing round the return fronts and giving a charming balance to the composition. One wonders why the town-halls of Bremen, Leipzig and Rothenburg are omitted.

Many of the smaller domestic buildings are delightful, one of the best examples being the richly carved Kronschrödersches Haus at Osnabrück.

It is surprising that the well-known Liebniz Haus in Hanover is not illustrated, also the Baumeister Haus at Rothenburg and some of the gateway towers there and at Dinkelsbühl, also some of the smaller houses at these lovely old towns, and the rich front of the Gewandhaus at Brunswick (of which the back, with its plain late Gothic windows, is given), also the Alte Wage and the Gildehaus there, the Knochenhaueramthaus, the Wederkindhaus and the Umgestülpter Zuckerhut at Hildesheim, and the external staircase of the town-hall at Lübeck.

On the other hand, one is astonished that four very uninteresting buildings (two of them really bad designs) at Nördlingen should have been shown.

The Palazzo Porcia at Spital is pure Italian Renaissance, devoid of any German influence whatever.

A chapter near the end of the book is devoted to town-plans and another to gardens, with a few illustrations of each subject.

LOUIS AMBLER [F].

**SPANISH GARDENS:** Their history, types and features. By C. M. Villiers-Stuart. La. So. Lond. 1929. [Batsford.] 25s.

Early in this book Mrs. Villiers-Stuart remarks:—"It was reserved for the Arabs, and more particularly the Shiah Moslems of Persia, to develop the love of plants and flowers until, owing partly to the conditions of the country, and partly to the religious restrictions of the Koran, which forbids the delineation of human beings, dwelling as they did on the delights of the eightfold Paradise, the garden became the paramount influence throughout Moslem Art." This love of gardens the Yeminite Arabs, who invaded the Spanish peninsula after the conquest of Egypt, brought from their spacious palaces at Sana, Bagdad and Damascus, and planted their water gardens in its arid hills. The love of gardens meant nothing to the Christian conquerors, whom the tales of the Arabian Nights represent replacing public baths with beerhouses; the love of high places whence the Moor gazed out over his flower beds and his fountains was suspect to the dweller in the mediæval castles; and their treatises on irrigation and agriculture

were solemnly burned in Granada by Cardinal Ximenes, with all the other Arabic books that he could collect.

The West hardly began to appreciate the Eastern understanding of flowers and gardens till the seventeenth century, when the lore was very carefully gathered up by the herbalists, who had their travellers in Persia and the Levant, their agents in Constantinople, and painfully brought back the flowers that must have grown in profusion in these Spanish gardens that were being made in all their glory before the Norman conquerors were heaping up mounds by Saxon cities; brought back to gardens four-square like the Persian gardens, furnished with both formal beds, high terraces "to feel the pleasant frisking air above," pleached walks and fountains. But it took many generations more, by way of the picturesque gardens of the eighteenth century, with their Umbrellas, and Tempiettas for the prospect, by way of the raptures of Shenstone, and Gray and Wordsworth and their like, to bring to northern Europe the association of flowers and views, scents and shelters; so that to-day we are only painfully learning what the Sultans of Cordova, and the rulers of Persia and India, knew by instinct and tradition long ago—and perhaps there is no one who can conjure up like Mrs. Villiers-Stuart these visions of gardens in Cordova, in Granada, in Agra and Kashmir, where lived and loved the glittering princes of the East and of the West.

For she comes to the Moorish gardens of Spain where the fountain basins linger as essential to life, and the cypresses and fruit trees wave together down the sides of the formal gardens, from Indian gardens which have long lost their cypresses and fruit trees, and their plashing water, but have retained in marvellous preservation their marble water channels and their fairy-like pavilions, sometimes even the stone edging of their garden beds. In Kashmir she saw, as she describes in her other book, *Gardens of the Great Moghuls*, first such gardens of terraces, eight from the eight divisions of the Paradise of the Koran, seven for the symbol of the seven planets, or twelve for the signs of the Zodiac, just such water courses and irrigation tanks, just such beds of massed glorious flowers, as her imagination recreates in the gardens of Majorca and Granada. In the Indian book there is a picture of the Paradise carpet, said to have been made for Shah Abbas. In the centre is a pavilion, and from it flow the four rivers of Paradise; the garden is four-square with terraces, and walks and flower beds; at the meetings of the paths are the glorietas, eight in number, "corresponding exactly to the eight pearl pavilions of the true believer's vision—the Pearl Pavilions where eight lovely Houris await their master in the Moslem Paradise." So when Mrs. Villiers-Stuart motors by some strange track to a lonely, half-deserted garden her eye is alert for high terraces, for simply, amply moulded fountain basins, for the palm trees that mark the corners of the gardens, for the cypress and fruit tree, symbol of eternity and human life, that is joy to the contemplative mystical mind as well as to the artistic eye.

"The natural beauty of the scenery," she writes, "provides a marvellous setting for the 'sons,' as the Majorcan manors are called. The forests are nearly all situated well inland, away from the pirate raids, with a mountain range at their back, and at their feet mile upon mile of olive



and almond groves, over which, far in the distance, can just be seen the towers and spires of Palma. And if added to these attractions the 'son' can boast a spring of running water, it is sure to be based on an old Moorish site."

The Moorish garden and the Indian garden, gardens from the two extremities of Moslem rule, had so much in common. First and foremost garden and house are one in a way only half-secured by the palaces of Renaissance Italy; the water that makes the flowers live is the water supply of the house. So the lotus-nozzled fountain in the courtyard, with its not very tall jet of water, the reservoir on the hill above, and the water channel, were inevitable features. The private garden of the harem is usually behind the house, and is the most exquisite of all. The terraces may be wide or narrow according to the slope of the site, but they usually conform to one of the sacred numbers, and rise to an airy look-out, above the cruel heat. The Alcázar, most marvellously adorned of all the Moorish gardens of Spain, where coloured tiles almost take the place of flowers, has its wall promenades which most visitors do not see as they are closed to the public. In the borders flowers are planted of simple and glorious colours and behind them cypress and fruit tree alternating. Then, as house and garden are one, the courts of the house are set with cypresses or orange trees and kept cool by the play of fountains. At the meeting of the paths in the garden are set, in the Indian gardens, small pavilions; in the Spanish the "glorieta," which "a Spanish friend translated for my benefit," tiny paradise, a "private glory, a refuge from the sun by day and the dining place of the family on hot summer nights. Bay trees are often used for this purpose, interwoven and trained to a great height." In some it is a masonry pavilion and a circle of cypresses.

Mrs. Villiers-Stuart visited not only the famous gardens of Spain but many smaller; persistence and friends at court gained her entrance even to most intimate nurseries where the reader may not hope to follow her; but I think the picture that lingers longest is that of the "even more adventurous motor rim than that to La Zubia took me jolting over the hilly by-road to the village of Viznar. But the Palacio de Cuzco proved well worth the effort. . . . I was just in time to see the fountains on the south front shoot up in a last display, making rainbows in the evening sunshine before they suddenly died away. Then one by one, the great keys were turned in their locks, and, regretfully, this palace of old Spain was left to dream again undisturbed over its memories."

H. C. HUGHES [A].

**THE LAW OF FIXTURES.** By W. T. Creswell, Hon. Assoc. R.I.B.A. (Published by The Builder, Ltd., Price 6s. net.

Mr. Creswell's works on Building Contracts, Dilapidations and Rating are well-known and appreciated so far that further editions are expected; his most recent work on arbitrations published under theegis of the Institute of Arbitrators in connection with its educational policy is also deservedly well received and now the Law of Fixtures comes under review, being a development of an interesting series of articles in the *Builder*, and it is

regretted that all the works are not published in similar sizes and bindings for the library shelf. The *Law of Fixtures* is pre-eminently the field of the surveyor and more generally within the purview of the agricultural surveyor rather than the building surveyor as for instance under the Agricultural Holdings Act of 1923, though the usual landlord and tenant covenants apply to ordinary everyday practice. Mr. Creswell first dwells on the connotation of the term "Fixture" in its various aspects and goes on to demonstrate what the term includes and the degree of attachment necessary to constitute ownership and right of removal. Fixtures are then classified under the headings of Trade, Agricultural and Ecclesiastical and their transfer by sale, lease, assignment and mortgage. The book closes with a chapter on "Practice and Procedure"; it may be described as one which will be of service to the student and a handy text book on the subject to the busy man who wishes to refresh his memory on the general principles of the subject.

W. E. WATSON [F].

## The Library

NOTES BY MEMBERS OF THE LITERATURE COMMITTEE ON RECENT PURCHASES

[These Notes are published without prejudice to a further and more detailed criticism.]

**ENGLISH ECCLESIASTICAL STUDIES.** By Rose Graham, M.A., F.S.A. 80. Lond. 1929. [S.P.C.K.] 15s.

Miss Rose Graham, the value of whose historical work is so widely recognised, is an author who understands the lessons that architecture has to teach, and her appreciation of its significance is to be found throughout the whole of these pages. This volume of studies is a reprint of papers chiefly on matters connected with the Cluniac order of monks, and everyone who knows the profound influence of Cluny upon the architecture of the eleventh and twelfth centuries will be eager to read what Miss Graham has to say. Her intimate acquaintance with original sources enables her to throw a vivid light upon a period that to many of us is obscure or unknown, although its architectural achievement is recognised by all.

W. H. G.

**ART IN ANCIENT ROME.** By Eugénie Strong. (*Art Una: Species Mille*.) 2 vols., 12 mo. Lond. 1929. [Heinemann.] 10s. per vol.

Mrs. Strong says in her preface that "books dealing with special aspects of the art of ancient Rome can now be counted by the score. But there is still a lack, it seems to me, of some work affording a connected account of what is known of the subject as a whole. The material collected is immense, but it needs further co-ordination." The result—in these two very handy (almost pocket) volumes—is of course admirable. Each volume contains about 200 pages of solid learning and almost every page has a small photograph aptly illustrating the text. The period covered is the Palaeolithic Age to 500 A.D. The arts embraced are sculpture, painting, architecture, pottery, metalwork and coins. Their development is threaded into an historical account of Roman life which relieves the sense of reading a catalogue. The book is intended for students and the cultivated public. They could not possibly start Rome armed with anything better.

A. S. G. B.



## Correspondence

### WASHING BUILDINGS IN LONDON.

Edinburgh.  
11 November.

DEAR SIR.—May I add another reason to those given by Mr. Allen Howe for washing limestone buildings in London? It is accepted that the main cause of the decay of the surfaces of these buildings is the crystallisation within the pores of the stone of sulphate of lime which is slightly soluble in water.

I therefore advocated some years ago the hosing of these buildings in summer, especially under cornices, leaving the stone to dry and the salts to crystallise on the surface after the first hosing, and then repeating the process. I also showed by an experiment made at Hampton Court, that an appreciable amount of sulphate of lime was removed by this process, and pointed to the Goldsmiths' Hall, London, as an excellent example of the results obtained, where hosing down has been practised for many years. The recent Report of the Board of Scientific and Industrial Research on Stone Decay supports this advice.

The hosing should be done from the beginning when a new building is erected. It should not be allowed to accumulate dirt and salts before anything is done.

May I also confirm the warning given not to allow the use of caustic soda in the cleaning of buildings with ostium. It promotes rapid decay. A. P. LAURIE.

### GREATER HIPPIAS (OR ON THE BEAUTIFUL: REPUTATIVE).

60 King Street,  
Manchester.

25 October 1929.

To the Editor, JOURNAL, R.I.B.A.—

SIR,—

*Socrates*: Well, that shall be done, God willing, Hippias. Now, however, give me a brief answer to a question about your discourse, for you reminded me of the beautiful just at the right moment. For recently, my most excellent friend, as I was finding fault with some things in certain speeches as ugly and praising other things as beautiful, a man threw me into confusion by questioning me very insolently somewhat after this fashion: "How, if you please, do you know, Socrates," said he, "what sort of things are beautiful and ugly? For, come now, could you tell me what the beautiful is?" And I, being of no account, was at a loss and could not answer him properly; and so, as I was going away from the company, I was angry with myself and reproached myself, and threatened that the first time I met one of you wise men, I would hear and learn and practise and then go back to the man who questioned me to renew the wordy strife. So now, as I say, you have come at the right moment; just teach me satisfactorily what the absolute beautiful is, and try in replying to speak as accurately as possible, that I may not be confuted a second

time and made ridiculous again: For you doubtless know clearly, and this would doubtless be but a small example of your wide learning.

*Hippias*: Yes, surely, by Zeus, a small one, Socrates, and, I may say, of no value.

*Socrates*: Then I shall learn it easily, and nobody will confute me any more.

*Hippias*: Nobody, surely; for in that case my profession would be worthless and ordinary.

*Socrates*: That is good, by Hera, Hippias, if we are to worst the fellow. But may I without hindering you imitate him, and when you answer, take exception to what you say, in order that you may give me as much practice as possible? For I am more or less experienced in taking exceptions. So, if it is all the same to you, I wish to take exceptions, that I may learn more vigorously.

*Hippias*: Oh, yes, take exceptions. For, as I said just now, the question is no great matter, but I could teach you to answer much harder ones than this, so that nobody in the world could confute you.

*Socrates*: O, how good that is! But, come, since you tell me to do so, now let me try to play that man's part, so far as possible, and ask you questions. For if you were to deliver for him this discourse that you mention, the one about beautiful pursuits, when he had heard it, after you had stopped speaking, the very first thing he would ask about would be the beautiful; for he has that sort of habit, and he would say, "Stranger from Elis, is it not by justice that the just are just?" So answer, Hippias, as though he were asking the question.

*Hippias*: I shall answer that it is by justice.

*Socrates*: Then this—I mean justice—is something?

*Hippias*: Certainly.

*Socrates*: Then, too, by wisdom the wise are wise and by the good all things are good, are they not?

*Hippias*: Of course.

*Socrates*: And justice, wisdom, and so forth are something; for the just, wise, and so forth would not be such by them if they were not something.

*Hippias*: To be sure, they are something.

*Socrates*: Then are not all beautiful things beautiful by the beautiful?

*Hippias*: Yes, by the beautiful.

*Socrates*: By the beautiful, which is something?

*Hippias*: Yes, for what alternative is there?

*Socrates*: Tell me, then, stranger, he will say, what is this, the beautiful?

*Hippias*: Well, Socrates, does he who asks this question want to find out anything else than what is beautiful?

*Socrates*: I do not think that is what he wants to find out, but what the beautiful is.

Yours very truly,

PAUL OGDEN.

### WESTMINSTER ABBEY.

In our previous issue of 9 November we printed a letter by the Dean of Westminster from *The Times*, in which Mr. C. R. Peers was referred to as the "Director" of the Society of Antiquaries. We apologise for this unfortunate misprint. Mr. Peers is, of course, President of the Society of Antiquaries.



## Drawings and Sketches by the Late Bertram Grosvenor Goodhue

OPENING OF EXHIBITION AT THE R.I.B.A. GALLERIES ON MONDAY, 18 NOVEMBER.  
SIR BANISTER FLETCHER, PRESIDENT, IN THE CHAIR

Through the kindness of Professor William Emerson [Hon. Corr. Member], Director of the Department of Architecture, Massachusetts Institute of Technology, a collection of pen and pencil drawings by the late Bertram Grosvenor Goodhue has been lent to the R.I.B.A. for exhibition, and will be on view in the R.I.B.A. Galleries till 30 November.

The PRESIDENT, in opening the Exhibition, said :

In the opinion of many of those best qualified to judge, the late Bertram Grosvenor Goodhue was the greatest and most original genius in architecture who has yet appeared in the United States. His premature death was a very great blow indeed.

He was for a number of years in partnership with Mr. R. A. Cram, the well-known Gothic architect. In that firm he shared the responsibility for the great new buildings at West Point, and for a great deal of ecclesiastical and college work. In his last few years he worked independently in New York. He did a great deal of remarkably fine and interesting ecclesiastical work, and just before his death, the Nebraska State Capitol, which made a great impression in the United States.

Mr. Goodhue's exceptional skill with pencil, pen and brush was well-known to his admirers. Through the kindness of Mrs. Goodhue, his widow, and of Professor William Emerson, of Boston, a selection of the most interesting of his work has been sent over for Exhibition in our Galleries.

In declaring this Exhibition open I will ask you to give a very hearty vote of thanks to Mrs. Goodhue and to Professor Emerson.

Mr. HARVEY WILEY CORBETT [F.] : I am glad to concur entirely with the words of your President in stating that Mr. Goodhue was the greatest genius in architecture that America has produced ; I think we in America agree to that without any question. He was an extraordinary man in many respects. We have, as of course you know, a number of men in America who have done a great quantity of work with considerable skill as to the finished product ; but Goodhue was a man who was an artist to his finger-tips. He seemed to draw with such ease and such facility that the product of his mind flowed literally out of the end of his pencil. He was one of those men who, when not actually engaged on a design for some particular building, would draw just for the love of it, would sketch, make book-plates and type and stamps. Time meant nothing to him ; he would work 18 and 20 hours a day and think nothing of it. That is exceptional among architects with us, and possibly with you, too. We have men of tremendous executive capacity, who see the thing through, secure the finished product, a credit as a work of architecture, but they themselves may not have a particular capacity for draughtsmanship. In their student days they produced something of real value, but in later life they are unable to continue as artists with pencil and pen, as Goodhue was able to do.

Goodhue was taken away from us at a time of his life when he was still a young man, still at the very top of his professional career, and we regard his death as one of our greatest architectural tragedies. In spite of the enormous amount of

work that he had done, Goodhue was a youth at all times ; he seemed like a boy. When you met him he was just as simple as he was when he was a draughtsman in the early days of his career, with the same youthful enthusiasm. He became extraordinarily proficient, as you know, in his interpretation of Gothic, and in church and ecclesiastical work generally he established for himself a reputation which I may say, was international. You would suppose that a man, having arrived at such a point, would comfortably continue in that field, and not give thought unnecessarily to other fields ; you might imagine that he would regard himself as a Gothic expert, and rest upon those laurels. But not so in the case of Goodhue ; he was always thinking, searching, changing his point of view, wondering if something better might not be secured in architecture. And when the opportunity came to him, through competition, for the Nebraska State Capitol, he veered away entirely from the archeological Gothic which he had been doing to a certain extent in his own work, and ventured into a new style of architecture. The Nebraska State Capitol is, perhaps, our most modern building of an important character in America. It was that tendency to see if something better could not be done, I think, that was his outstanding characteristic. What he did he did so well, and he did with such apparent ease and facility that he kept searching for problems for himself in the hope of discovering something new, possibly something more suitable to the conditions of modern life in America. In his most recent work—which I am sorry none of these drawings show, for these are all of his earlier work—he was looking for an expression of architecture more fitting to the present day and age than anything which he had done before. From that point of view, his early death was a real tragedy to the whole art of architecture.

The PRESIDENT : I understand that Mr. Henry M. Fletcher, who is a brother-in-law of Professor William Emerson, was in a large measure responsible for getting these drawings over here, and perhaps he would like to say a few words.

Mr. HENRY M. FLETCHER [F.] : Those of us who remember Mr. Goodhue will entirely agree with what Mr. Corbett has said about his extraordinary vitality and his outpouring of artistic creation. I am sorry I only met him once or twice, and for a very short time ; but the impression he made upon me, and I am sure, upon everybody here who did meet him was the same ; that he was a man who lived for his architecture. The quality of draughtsmanship which is shown in these drawings is very high, and I cannot help feeling that it would have been very interesting if we could have had a few plans and some record of his later work, which we have only seen in small illustrations in the Press. Perhaps Mr. Corbett could tell us whether the Nebraska Capitol has been built and carried out according to Goodhue's own ideas.

Mr. CORBETT : It has been built ; it is not complete yet, but the major portion of it is complete ; the great tower, and the central dome under it. The young men who were working with Goodhue at the time of his death took over his office, and have been carrying on the firm under the title " Goodhue Associates," and, I think,



have captured with remarkable skill the spirit of Goodhue's work. It is not possible to say whether it is exactly as Goodhue would have done it, of course, but these men were so long associated with him, and understood so thoroughly his point of view and his approach to the problem, that I think the Nebraska State Capitol really stands as a very successful monument to Mr. Goodhue himself, and we are to be congratulated that he had such a group of men under him, who saw with his eyes, so to speak, his undertaking.

Mr. RAFFLES DAVISON: I have always felt that Goodhue was one of those architects in America—we are very proud here of American architects; we think they owe a good deal to the Mother Country after all—

who seem to get something of the real spirit of Oxford and Cambridge and all our beautiful old English churches. He had the spirit of Gothic work in what he carried out. We have heard draughtsmen praised to the skies, and we have heard draughtsmanship derided and decried. I think a man who can draw is a long way on the road to designing. Goodhue was a singular instance of high capacity in design and also in drawing. I have often seen buildings in the streets which I have felt would not have been there if their architects had projected them properly in perspective by a drawing, and thus seen what they looked like before they were built. The capacity for skilled draughtsmanship and the putting down on paper what his reason set forth, was a tremendous asset to a man like Goodhue.

### THE PROPOSED CHARING CROSS BRIDGE.



Mr. Arthur Keen points out that the plan of the proposed Charing Cross Bridge, reproduced above, bears no signature. He wrote to the Engineer of the L.C.C. asking if he might have a copy of Sir Edwin Lutyens's scheme and received a reply from the Clerk to the Council stating that he could not supply a copy of the plan of the scheme approved by the Council on the 30th July last, but that a copy of the approved plan might

be seen at the County Hall. The plan illustrated is the one in question which Mr. Keen was shown at the County Hall. It shows the long street tunnels that the President referred to in his opening address, the traffic roundabout close to the existing Trafalgar Square one, and it shows how completely the long-awaited opening up and developing of the South side between the River and the Railway is permanently prevented.



## Legal

### A MANCHESTER ANCIENT LIGHT CASE.

JAUFFRED AND GABRIEL AND ANOR v. JOSEPH SUNLIGHT.

In the Manchester Chancery Court on 26 July last, the Vice-Chancellor delivered a considered judgment in a somewhat important dispute as to ancient lights after a hearing which had extended over several days.

The judgment followed the usual lines, based upon the standards of adequate light first laid down in *Senon v. Bradford Corporation*, and followed in *Horton v. Beattie* and all subsequent cases of importance, reported or otherwise, for some years past. Although no new point of law or practice was decided, the judgment is of considerable interest and even of importance, owing to the fact that it discusses and adjudicates upon several novel defences which were put forward including a strong suggestion that the basis of the usual standards of adequate light was scientifically inaccurate.

These legalised standards have proved invaluable to architects, who can by means of them readily ascertain whether the effect of any proposed obstruction is negligible, material, or legally unbearable; and can advise their clients accordingly; either to resist an untenable claim, to offer compensation where the legal injury is clear but small, or to meet cases where the legal remedy would inevitably be injunction by timely modification whilst over-ambitious proposals exist only on paper.

Had the defence succeeded, and the plaintiffs not appealed, the case would have formed a precedent for upsetting the present well established legal position; with a probable reversion to the unsatisfactory state of things when no recognised standards existed, when architects were tempted to take risks with doubtful law and frequently had their buildings mutilated, and when the Courts were constantly irritated by contradictory "opinions" from eminent architects as distinct from the proven and generally agreed facts which are customary to-day.

The defence, however, failed.

The material facts of the case sufficiently appear from the judgment which, being somewhat unusually detailed owing to the novelty of the defence, constitutes a very useful epitome of the principles which the Courts apply to these cases. It is therefore given below practically in full.

The author of the methods of measurement referred to did not give evidence.

P. J. W.

THE VICE-CHANCELLOR said:—This action is brought to restrain a threatened obstruction of light to the front windows of Oversea House, on the south side of Quay Street, Manchester, by the erection of a building by the defendant on the opposite side of Quay Street. It is admitted that the plaintiff's windows are ancient lights, and the defendant says that sufficient light for ordinary business purposes will be left to the plaintiffs' windows having regard to the quantum of light which one is entitled to expect in such a locality. He further says that if the light left is insufficient, the deficiency can be more than made good by the plaintiffs allowing their front windows to be altered and enlarged, and that in any case the plaintiffs ought not to be granted an injunction but adequately compensated by damages.

The plaintiffs, Jauffred and Gabriel, are the owners in fee of Oversea House, which they purchased in June, 1928, for £30,000, and they have since expended £9,000 in adapting it for the business of shippers of Manchester goods, and they have let the whole building to the plaintiffs, James Collinge, Limited, on a lease for ten years from 24 June, 1928, at a yearly rent of £2,200 plus interest calculated on £40,000 at a rate of 1 per cent. over Bank rate. James Collinge, Limited, have sublet the first floor to Jauffred and Gabriel for 2 years

from March, 1929, and have sublet the second floor to Mr. Menashes, a shipper.

Quay Street is 54 feet wide, and the defendant's proposed building, immediately opposite the window complained about, is intended to rise to a cornice 86 feet 1 inch above the pavement, and then with certain steps back to reach an ultimate height of 121 feet, so that its height will be more than twice the width of Quay Street, and it will have a frontage of 2½ times that of the plaintiffs' building. There is a pylon at one part of the frontage 98 feet high.

No complaint is made in respect of any of the windows to the east of the porch as the defendant's plans show that he intends to increase the width of Little Quay Street opposite from 27 feet to 47 feet, and this will afford sufficient light to the windows in the easterly half of Oversea House. The test of the angle of light is appropriate to the present case where the obstructing building will be directly opposite to the windows in question of the dominant tenement, will have a fairly even sky line and will extend to some distance on either side of the windows in respect of which complaint is made.

Applying the 45 degrees rule, which is not a rule of law but what Lord Davey in the *Colls* case said might properly be used as *prima facie* evidence, I am of opinion that the deprivation of light is so substantial as to cause a nuisance to the occupants of the ground floor rooms, as they will not have sufficient light left to enable them to carry on their business there.

The room is occupied by James Collinge, Limited, as an examination room for goods to be shipped abroad. The texture of the cloth has to be examined, and the numerous shades of colour sorted and matched. In spite of expressions used by some of the plaintiffs' witnesses, no extraordinary degree of light is or could be claimed for this purpose, but natural light is essential with regard to the colours. Artificial light would be quite useless.

The basement is used by Messrs. Collinge as an office, and they have three clerks there. It is not a true basement, but a semi-basement, and this room will certainly be insufficiently lighted if the defendant's building is erected as proposed.

The first floor rooms to the west of the porch are occupied by Jauffred and Gabriel, who are calico printers and shippers, one being used as a sale room, and the others as a clerks' office and a private office. In the sale room they exhibit their printed fabrics on easels and their customers choose them, and require good natural light to choose colours and patterns, and in my opinion, insufficient light would be left for these rooms.

With regard to the second floor, though the injury will not be so great, I think it will be insufficiently lighted, particularly in the western part of the room, but the tenant, Mr. Menashes, is not a party to the action, and has not been called as a witness, and I do not attach much importance to this part of the claim.

In addition to the test applied of the angles of light evidence was given on both sides on the method of measuring the light which has been called the "Waldheim" method, which is described by Mr. Justice Eve in the case of *Senon v. Bradford Corporation* (1922 2, Ch. 737). One advantage of this method is that it affords a more accurate measure of the effect of lateral light than the angle method. Mr. Pitts, who was called on behalf of the plaintiffs, put in a series of diagrams showing by brown colour the area where the light would be 1 per cent. or less of the sill light. The "grumble point" (a rather unfortunate way of describing the point when the insufficiency of light gives cause for complaint) is placed at 0.4 per cent. of the sill light. Mr. Pitts's diagrams do not show



this line, but he stated in evidence that the 4 per cent. line would roughly follow the 1 per cent line at 1/4 of an inch inside the brown margin on the diagrams equivalent to 1 foot on the floor, the scale being 8 feet to the inch. His calculations are based on a sill light of 250 foot-candles (a foot-candle being the light from a candle one foot away). Mr. Ackermann, who was called for the defendant, said that 250 foot-candles is too low an estimate of the sill light, and he puts in the results of observations of sky brightness taken at the National Physical Laboratory at Teddington three times a day during the years 1927 and 1928. Basing his opinion on these records, he says that the sill light ought to be assumed at 600 foot-candles. The effect of this would be that the grumble point would be reduced from 4 per cent. of the sill light to 16 per cent., and all the calculations based on the Waldram method would go by the board. Mr. Swarbrick, one of the defendant's experts, went so far as to say that the ratio of 4 per cent. was "a popular fallacy." I know of no case where Mr. Ackermann's assumption has been accepted, and I do not accept it myself.

In the first place, observations of sky brightness taken at Teddington do not afford a safe guide when dealing with the cloudy skies and smoke-laden atmosphere of Manchester. Neither do I agree with the way in which Mr. Ackermann arrives at his figures of 600 foot-candles. An average of the daily light for a year does not assist me. If to-day is a dark day, I cannot see any better to read because yesterday was a bright day, and it is quite possible that at no moment throughout the year was the actual sky brightness at the same figure as Mr. Ackermann's average. So that his estimate appears to be based on observations in the pure atmosphere of Teddington and includes many observations taken when there was bright sunshine, which, of course, raises the average immensely.

On the other hand Mr. Waldram's estimate of a sky brightness of 500 foot-candles (giving a still brightness of 250) is based on a series of actual observations and measurements on dull but not abnormally dull days such as obtain over the greater part of winter, over substantial, but less lengthy, periods in early autumn and late spring, and on wet days in summer—the kind of day more frequently occurring in Manchester than bright days. It is not an average, but a statement of the actual conditions likely to be met with and which have been met with over a long period of observation, and I accept 250 foot-candles as the standard of sill brightness which I must work on.

Accepting 250 foot-candles as the sill light, the conclusion at which I have arrived on the test of the angles of light is confirmed, and the plaintiffs have, in my judgment, made out their case that the defendant's proposed building will cause such an obstruction of their ancient lights as to cause a nuisance.

It was suggested that the increased light coming to the eastern half of the plaintiffs' building owing to the widening of Little Quay Street should be set off against the increased obstruction opposite the western half. I cannot see how increased light coming to one room can be set off against the diminution of light to another room. The case of *Davis v. Warrell* (1913 2 Ch. 421) only related to one room. It was also contended that in estimating whether there is a nuisance regard must be had to the locality, and that the owner of an easement of light in a town is not entitled to as good a light as the inhabitant in the country. This is contrary to the decision of Mr. Justice Russell (as he then was) in *Horton v. Beattie* (1927 1 Ch. 75) and with which I respectfully agree, and I am inclined to think that if any distinction is to be drawn between town and country, the inhabitant of a dark, smoky town can less afford to be deprived of such natural light as reached him than the inhabitant of the country where the atmosphere is clearer.

The question then arises whether the plaintiffs are entitled to an injunction or only to damages. *Prima facie* their right is to an injunction. Several reasons are put forward by the de-

fendant against an injunction being granted. First, it is said that the plaintiffs' building is of old-fashioned design; that it is "a relic of the days of Ruskin," and that if its windows were altered by removing the stone mullions and the ornamental stonework at the head of the windows more light would be admitted to the plaintiffs' rooms, and that if they obstinately refuse to allow these alterations to be carried out they are acting so unreasonably that the Court will refuse them an injunction. Evidence was tendered on behalf of the defendant to show that the plaintiffs were not using their building in accordance with modern practice by refusing to have their windows altered as suggested by the defendant, and as to the feasibility of such alterations. I rejected this evidence as irrelevant, and I do not see what limit could be placed on such suggestions if they were admissible. Could the plaintiffs be asked to pull down their brick building and substitute a glass house? To my untrained eye the plaintiffs' building is of a meritorious design, and its windows, though not as large as some more modern windows, are not of an unreasonable shape or design. The plaintiffs are, in my opinion, quite within their rights in refusing to have their building altered, which, according to the evidence of Mr. Halliday, would entail much expense and inconvenience and disturbance of their tenants, and I see nothing unreasonable in their refusal.

The defendant's counsel suggested that in insisting on their rights the plaintiffs were not discharging their duty to their neighbour, but I fail to see why they should be expected to submit to deprivation of their rights in order that their neighbour may enrich himself.

Then it is said that if the defendant is not allowed to carry out his plans he will be involved in a loss of £40,000. Work has been carried out and contracts entered into by him with a view to the erection of a huge building according to plan. There is no suggestion that the plaintiffs have stood by and encouraged the defendant to incur expense. He entered into contracts in January 1929, after having had fair warning of this action in December 1928, and if he had involved himself in loss that is his own responsibility. If such a reason held good a defendant could ensure the refusal by planning a still larger building and involving himself in still greater loss, and thus deprive a plaintiff of his easement.

It is also contended that the plaintiffs are obstinately standing in the way of the public improvement of Manchester. I am not satisfied that the erection of skyscrapers is to the public advantage, however profitable it may be to their owners, but that is not a matter which I have to consider. All the foregoing objections have been answered years ago by Lindley, L.J., in *Shelfer v. City of London Electric Lighting Co.* (1895 1 Ch. at p. 315), where he says:

"The Court has always protested against the notion that it ought to allow a wrong to continue simply because the wrongdoer is able and willing to pay for the injury he may inflict. Neither has the circumstance that the wrongdoer is in some sense a public benefactor (a gas or water company or sewer authority) ever been considered a sufficient reason for refusing to protect by injunction an individual whose rights are being persistently infringed. Expropriation even for a money consideration is only justifiable when Parliament has sanctioned it. Courts of Justice are not like Parliament, which considers whether proposed works will be so beneficial to the public as to justify exceptional legislation and the deprivation of people of their rights with or without compensation."

The case of *Slack v. Lush Co-operative Society* (1924 A.C. 851, and on new trial 1924, 2 Ch. 475) was pressed upon me, but the circumstances of that case were very exceptional and quite different from those of the present case, and it was recognised in that case that the rule to *Shelfer's* case was still in force.

In my opinion the present case does not fall within the rule as laid down by A. L. Smith L.J. in that case. Here the injury



would be substantial and the damages large, and having regard to the business carried on by both plaintiffs for which natural light as distinguished from artificial light is essential, damages would not adequately compensate the plaintiffs for the loss of the natural light.

I accordingly grant a perpetual injunction as claimed in paragraph one of the claim, and the defendant must pay the plaintiffs' taxed costs of the action.

#### THE MEANING OF "COMPLETION"

The Practice Standing Committee having been requested to give some guide as to the meaning of "Completion" as used in the Institute Form of Contract one of the Hon. Secretaries (Mr. W. E. Watson) was requested to prepare a monograph—which has been approved by the Practice Committee.

It may be said that Completion of a project means the realisation or fulfilment of the conception so that where the contract is for a dwelling house the term "Completion" connotes a readiness for immediate occupation. The Courts in construing conditions of contract such as those under consideration will firstly consider them as a whole in their ordinary and popular sense, secondly in any peculiar sense they may have acquired by usage in the trades concerned—subject to the rule that contracts are to be liberally construed.

When Parties enter into a building contract such as that above suggested probably the intention and expectation of the Employer is to have his house completed by a certain named date, and if he alters or amends the design or workmanship he assumes that the Contractor has such means at his disposal that the additional burden can be carried with its consequent profit without material extension of time and he makes arrangements accordingly, relying upon his bargain with the Builder. The Builder upon the other hand knows that he has to complete by a certain date but he also knows that legally he is entitled to sole and uninterrupted possession of the site as well as the contract period in which to perform the works stipulated for, and he also is aware that material alterations or interruptions may render void the agreement as to time, further he is cognisant of the fact that agreement is provided to compensate the Employer by way of ascertained and liquidated damages should he be deemed by the Architect to have lacked due diligence in progress.

These somewhat divergent views may briefly express the intentions of the Parties to the Contract but the Courts or the arbitral tribunal in construing the agreement will pay regard not to the intention of the Parties but to the true meaning of the words written or printed above the signatures, and no evidence may be adduced however strong it may be to prove an unexpressed intention. Therefore, if the intention of the Employer is as outlined above, amendments to the Contract form to meet the special circumstances will have to be made.

The word "Completion" has been judicially interpreted on several occasions and in one case as regards third parties means completion in fact and not completion according to the building contract.

Channell J. said completion means completion of the actual work which has to be done although it is possible that some things may have to be done at some future date to keep the work in order.

Cozens Hardy M.R. said that a contract for laying water pipes was completed when the water began to run through them.

Kindersley V.C. in an action for specific performance where it was agreed to take a lease of a house when it was complete finished and fit for habitation granted the decree though the pleadings filed some 26 defects short of completion; of these the Learned Judge said twelve were frivolous the other four substantial being as to drainage water supply

wall papering and a serious settlement and he ruled that the date of completion was that on which the Lessee had such possession as enabled him to give possession to a sub lessee. On appeal this judgment was confirmed.

Having regard to prevailing practice established by usage and to such judicial dicta as is available it may be said that Completion arises on that day and at that moment when the Architect by inspection of the works decides that he may with all reasonableness certify completion with its resulting payment regard being had to the number of days latitude permitted by Clause No. 30, and when he is satisfied that the amount of retention money held is adequate to its particular purpose under Clause No. 17.

W. E. W.

#### THE UNIVERSITY OF CAPE TOWN.

The following address has been sent by the Royal Institute of British Architects to the University of Cape Town on the occasion of the University's centenary:—

FROM THE ROYAL INSTITUTE OF BRITISH ARCHITECTS TO THE UNIVERSITY OF CAPE TOWN.

GREETINGS and felicitations upon the attainment of the University's Centenary.

The Institute recognises and applauds the achievements of the University and the distinguished part it has played in the history of South Africa during the past Century. Looking back over the intervening years the Institute is profoundly impressed with the vision of those who were responsible for the inception of the University at what was then a far-off outpost of the British Empire, and with the wonderful status and expansion it has reached by reason of the labours of those who succeeded the early pioneers and carried on their aims and traditions.

The Institute has greatly appreciated the co-operation of the University in holding examinations for Architectural students in South Africa similar in scope and standard to those held in England and throughout the Empire. By such co-operation a generally recognised standard of Architectural education is being established for the good of the profession and of the public.

The Institute is keenly interested in the School of Architecture which the University has established, and the scheme which has been formulated for the recognition of the work and examinations of that School as training and qualification for the practice of the profession of Architecture, and for membership of the Institute.

The Institute notes with satisfaction that the University of Cape Town together with its sister University of the Witwatersrand has been appointed by the Union Government to be the Examining Body under the Architects Registration Act which has recently become law in South Africa.

The Institute watches with interest the building of the University's new home, which will facilitate its good work, express its great achievement and make good augury for a still greater future.

This address was presented by Charles Percival Walgate (Associate), Delegate representing the Council of the Royal Institute, Tuesday, 1st October, 1929.

#### WATER COLOUR DRAWINGS BY MR. J. C. BEARE [A.]

An exhibition of water colour drawings by Mr. J. C. Beare, A.R.C.A. [A.], will be held at Walker's Galleries, 118, New Bond Street, W.1, from 2 to 21 December inclusive.

Mr. Beare has been represented at the principal galleries for some years, including the R.A., R.C.A., R.W.A., W.A.G., and others, but this will be the first collective exhibition of his works.

The hours are 10 to 5, and on Saturday 10 to 1. Admission free.



## Allied Societies

*(The attention of Members of the Allied Societies is particularly called to this page)*

### ESSEX, CAMBRIDGE AND HERTS SOCIETY OF ARCHITECTS.

#### WEST ESSEX CHAPTER.

A conference was held on Monday, 4 November, under the auspices of the West Essex Chapter of the Essex, Cambridge and Herts Society of Architects to discuss better housing for the people. The President, Mr. H. W. Gay, was in the chair. Mr. S. Phillips Dales, Secretary of the Chapter, gave an address on "Our Homes." A vote of thanks was proposed to Mr. Dales for his lecture by Councillor Hole and seconded by Mr. H. T. Muggersidge, M.P. for Romford.

#### SOUTHERN AND DISTRICT CHAPTER.

A lecture on "Domestic Architecture" was given by Mr. H. Baillie-Scott, F.R.I.B.A., at a meeting convened by the Southern Chapter of the Essex, Cambridge and Hertfordshire Society of Architects, which was held at the School of Arts and Crafts, Southend, on Wednesday, 6 November.

Mr. G. F. Grover presided and in welcoming Mr. Baillie-Scott said his work was well known to all architects. The lecturer, at the outset, said that architecture considered as the art of building homes for human beings, in Ibsen's phrase, might at first sight seem a fairly simple affair. If they limited themselves to the merely material and physical aspect of the matter that might be so. It was only when they introduced the psychic or spiritual side of the question that matters became more complicated. So it might be asked why not confine themselves to the material aspects and leave the spiritual to the exponents of ecclesiastical architecture. It was an age of machinery. They designed their motor cars on lines of strict utility and efficiency. Why not do the same with houses and cut out all the artistic business, especially as the pursuit of artistic ideals had in the past led them so far astray? Let them be sensible. If they were sensible, they must realise that the problems involved in building a house were something essentially different from those to be considered in making a machine. The modern ideal of the home had been summed up in the phrase "a machine to live in." It would be almost as reasonable to describe a church as "a machine to pray in," and the finishing touch to the mechanical church might well be provided by prayers recorded on the gramophone. He, for one, would never be content to live in a machine. In any case, it was obviously absurd to call a house a machine. The best kind of houses always seemed to him far removed from deadly mechanical devices. They had a measure of life and a distinct personality. If their country building was to decorate the natural world and emphasise and illustrate its peculiar characteristics as the old buildings did instead of disfiguring the natural world, like most modern buildings, he thought, they had much to learn from the old builders, who succeeded so wonderfully where they failed. If they considered the various kinds of houses they might build, they would find they divided themselves into three different kinds—the Tudor house, the Georgian house and the modern house. Or they might have a blend of the three in various proportions—what might be called the eclectic house.

After dealing with the Tudor and Georgian houses, Mr. Baillie-Scott said there was the modern house, and what they might call the robot building. In all the various methods of designing houses there was one thing to be said. Any style or school of design was good if it was well enough done, and some of their modern experiments were very well done. They were logical and honest. But when they stood by the side of the old houses as decoration of the countryside, they shrivelled into insignificance. He approved the old way of building, in which each material was treated so as to bring out its real character. In the designing of houses and cottages, and

especially cottages, perhaps the most important thing was what they called scale. He supposed that they would never have any natural beauty in building again until they had learnt that the first business of a country was to produce its own food, for then when agriculture took its rightfully dominant place, they would derive their inspiration from nature, instead of the factory and the machine. It was important that they should learn the art which their forefathers practised of harmonising buildings with their surroundings.

A hearty vote of thanks was accorded to Mr. Baillie-Scott for his lecture on the motion of Sir Charles Nicholson, seconded by Mr. Percy Hayward.

### SOUTH WALES INSTITUTE OF ARCHITECTS.

#### COUNTRYSIDE PRESERVATION: CONFERENCE AND EXHIBITION AT CARDIFF.

Under the joint auspices of the Association of Welsh Local Authorities, the South Wales Institute of Architects and the Council for the Preservation of Rural Wales, a "Countryside Preservation" Conference and Exhibition were held at the City Hall, Cardiff, from 18 to 22 October, 1929. The collaboration of these three bodies, representing administrative and professional agencies, was a significant one and augured well for the future success of the national movement for preserving the Welsh countryside.

The Conference was well attended, and apart from routine business the time was mainly devoted to addresses by Messrs. G. L. Pepler (of the Ministry of Health), Clough Williams-Ellis (Chairman C.P.R.W.) and T. Alwyn Lloyd (President S.W.I.A.), after which there was a brisk discussion. The importance of town, rural and regional planning was emphasised, and although Welsh authorities have been backward compared with those in England, there are indications of a more progressive policy, particularly in Glamorgan, the North Wales coast and in the Wrexham district. The size of Wales is such that, in the opinion of those best qualified to judge, the problems of development and preservation can only be dealt with adequately by a gradual system of national planning. As was pointed out at the Conference, planning for the future should not consist merely of the provision of roads and building sites, interspersed with occasional open spaces. It should embrace also the conservation of the countryside, definite allocation of large areas permanently for agriculture, treatment of the coast and the holiday centres in the most appropriate way to preserve their natural character and the saving from exploitation of all beauty spots and places of historic interest.

As essential details within the framework of such national planning, the more immediate problems of control of building character, of advertisements, the placing and design of industrial units, such as petrol pumps, the need for more playgrounds and the provision of national parks (or, as they should more appropriately be called, national "domains") were dealt with by the speakers.

Although speeches and discussion are obviously necessary in these matters, it is recognised that the public can be appealed to more directly by graphic means. The Exhibition was therefore of wider importance than the Conference; it was one of the series organised by the C.P.R.W. and was admirably arranged, consisting of a number of photographs and drawings neatly mounted and well lettered. The C.P.R.W. were able to augment the general Exhibition by some examples of local interest. There were also several models, and maps of town and regional planning schemes in Wales. Among the photographic exhibits were those showing the right and wrong way of displaying advertisements; the spoiling of the landscape and of individual buildings by ugly signs; the placing of new



buildings so as to harmonise not only with their neighbouring buildings but with their natural surroundings; inns and refreshment places which are useful and beautiful; vulgar commercial erections as contrasted with new buildings of architectural character; the destruction of trees and hedges on the one hand and the saving of these to the great advantage of resident and passer-by. There were views of new arterial roads crudely engineered and those showing the reverse of this. One of the most striking exhibits of interest to Cardiffians was three views in Carhays Park; one, showing the magnificent City Hall, another, the adjacent back premises of a prominent caterer with vulgar signs and ramshackle outbuildings, and the third a large advertisement hoarding on one side of the civic centre obscuring the view of the park lands behind.

The "Gateway of Wales—Abergavenny" was represented by a ramshackle advertisement hoarding at the entrance to the town! Various garden villages, new inns and buildings in South Wales were shown by way of contrast to the prevailing disorder.

When the provisions of the various planning schemes are carried out, and if the lessons of such exhibitions as this are seriously taken to heart, there is still a chance, in spite of the damage already done, that the Welsh countryside can be saved and her towns retrieved.

#### CENTRAL BRANCH.

Under the auspices of the South Wales Institute of Architects (Central Branch) and the Institute of Builders (South Wales Branch) a lecture was given at the Engineers' Institute, Park Place, Cardiff, on Thursday, 31 October, by Professor C. H. Reilly, M.A., F.R.I.B.A., Rostoe Professor of Architecture in the University of Liverpool, Mr. H. Norman Edwards, Chairman of the Central Branch, in the chair.

Professor Reilly took as his subject "The New Delhi," and with the aid of a large collection of lantern slides, he described in detail the great scheme of layout and the planning and architectural treatment of the vast new city, and also succeeded admirably in conveying to his audience a vivid realisation of the nature of the environment with which Sir Edwin Lutyens, R.A., and Sir Herbert Baker, A.R.A., were called upon to harmonise their buildings. A vote of thanks to the lecturer was proposed by Mr. James Turner, F.I.O.B., and seconded by Mr. T. Alwyn Lloyd, F.R.I.B.A.

Prior to Professor Reilly's lecture, a short address on "The Architect in Fiction" was given by Mr. W. S. Pearchon, M.A., A.R.I.B.A., Head of the Welsh School of Architecture.

#### WEST YORKSHIRE SOCIETY OF ARCHITECTS.

Mr. G. H. Foggitt, president, took the chair at a meeting of the West Yorkshire Society of Architects, held at its Leeds headquarters on 14 November, when it was announced that owing to the death of Mr. W. Whitehead, and the resignation of Mr. J. Addison, the posts formerly held by them had been filled by the appointments of Mr. B. R. Gribbin as Honorary Secretary, and Mr. Douglas Bowman as Honorary Treasurer. Mr. J. C. Procter was appointed representative on the Allied Societies' Conference, whilst Mr. Norman Culley became a vice-president. Lt.-Col. H. W. Barker, of Bradford, and Mr. J. Addison, of the Leeds School of Architecture, filled vacancies on the council.

At the conclusion of formal business, a lecture on "Modernism in Furniture" was delivered by Mr. Holbrook Jackson, of London, a former honorary secretary of the Leeds Arts Club.

The lecturer remarked that life could not be carried on without furniture. Even Diogenes had his tub. But life could be endured with inappropriate, ugly and ill-made furniture. This needed no proof, as witness much of that existing in the "sleazebag homes of England" as well as in the "artistic" villas which fringed our arterial roads. In most ages, the speaker presumed, there had been a few people, an "acute but honourable minority," who had preferred something better than the average piece of furniture, and who had by word and deed set a good example to the others, which they had often seen fit to ignore.

What was known as the modernist movement in art was the result of social rather than of aesthetic changes, and there had been a social impulse behind most art movements; a number of which, including the present one, had been frank protests against an existing art condition. The vogue inaugurated by Ruskin and Morris led to many artistic improprieties, and was the means of turning the comfortable nineteenth century dining-rooms of the plutocracy into fourteenth century refectories, and their Victorian lobbies into romantic crypts. The modernist view of furniture was frankly utilitarian. A chair, for instance, was something to sit upon; it was something to look at; and, lastly, it was something to be placed in a room. It must satisfy bodily convenience; it must please the eye; and must convince by its true relationship to its surroundings.

There was a bold person who once ventured to remark to William Morris that a chair he had designed was uncomfortable; whereupon Morris thundered back: "If you want to be comfortable, go to bed."

Among illustrations of modernist furniture shown by the lecturer were a number of examples designed by French architects and artists.

Mr. W. Alban Jones, in proposing a vote of thanks to the lecturer, declared that it was high time that somebody started a campaign against modernism as being all nonsense. Art only began where function and logic ended. He did not feel that the modernists were on the right rails. The movement was nothing but a puritanical protest against over-ornamentation. It did not seem to him to express any conceivable or desirable emotion.

The president, Messrs. J. C. Procter, Norman Culley, J. Addison and others took part in the subsequent discussion.

#### REWARDING GOOD ARCHITECTURE.

It is just ten years ago since the then President of the R.I.B.A., Sir John Simpson, brought forward his scheme for presenting a Medal annually for the best building completed within the County of London. The first medal was awarded to Mr. W. Curtis Green for his Wolseley House, Piccadilly, and the award attracted very great public interest to the new experiment. Since that date the Medal has been awarded regularly. In 1923 it went to Mr. Francis T. Verity; in 1924 to Messrs. Greenaway and Newberry; in 1925 to Sir Edwin L. Lutyens; in 1926 to Mr. Hubert Lidbetter; in 1927 to Sir Giles Gilbert Scott; in 1928 to Messrs. J. Murray Easton and Howard Robertson. The 1929 competition is now under way.

It was part of Sir John Simpson's original proposal that all the Allied Societies of the R.I.B.A. should be encouraged to make similar awards in their areas, and the R.I.B.A. Medal was offered to them for the purpose. For some years nothing was done, but at last Scotland took up the idea and instituted a quinquennial Medal. This was awarded in 1927 to Mr. John Watson and Mr. David Salmon for a building in Glasgow.

Meanwhile one of the Allied Societies overseas had taken up the scheme, and for two years past the London Jury has been awarding a Medal for the best building of the year in New Zealand. It is understood that one or two other Allied Societies are contemplating making a similar move.

The Essex, Cambridge and Hertfordshire Society has given a lead to all the other Allied Societies in England. The first award has gone to Mr. Basil Oliver, a well-known architect who is famous for the study he has given to old work in all parts of the country, and to the devoted efforts that he has made to save threatened beauty of every kind. The building for which he is receiving the honour is "The Rose and Crown," Cambridge.

The Medal will be presented to Mr. Oliver by the President of the R.I.B.A., Sir Basil Fletcher, at the Annual Dinner of the Essex, Cambridge and Hertfordshire Society of Architects on Thursday, 12 December, at Chelmsford.



## Obituary

JAMES MACINTYRE HENRY [F.]

The death of James Macintyre Henry [F.], of Edinburgh, severs a link with well known Scottish Architects of the nineteenth century. He served his apprenticeship to Andrew Heiton, of Perth, and was for some time a draughtsman in the office of the even better known David Bryce in Edinburgh.

He was a native of Dunkeld, Perthshire, and carried out a considerable amount of work in that country, including Dunkeld House for the (late) Duke of Atholl.

His best known works in Edinburgh are the Midlothian County Buildings in Parliament Square and the Royal British Hotel in Princes Street.

It is about 35 years since I first became a member of his staff; and as I have been in partnership with him for nearly 25 years, it is hardly for me to speak of his later work, but a word or two about his personality may be of some interest.

His practice was varied, subject to considerable fluctuations and not without its worries, but he rarely was flustered and never in a hurry. He had a sound knowledge of materials and methods of construction but was slow to adopt new materials or new methods. He had not the knack of persuading a client to spend more money, but rather a flair for finding means to reduce the cost.

In regard to the acquiring of new business, he was one of the old school of architects, of whom I have known not a few but who appear to be fast dying out. He could rarely be persuaded to write a letter offering his services even if he had the plans in his office of the building which had been destroyed by fire or which was otherwise the subject of a building project.

He took a keen interest in the affairs of the City of Edinburgh, and was Lord Dean of Guild of the city from 1912 to 1917.

T. F. MACLENNAN [F.]

THEODORE RIDLEY SAUNDERS, F.S.I., A.M., INST. C.E.  
(RETIRED MEMBER OF THE SOCIETY OF ARCHITECTS.)

Born in Lambeth in 1835 and educated at Dulwich, Mr Saunders went to Ventnor in 1872. He was articled to his brother, the late Mr. R. J. H. Saunders, M.I.C.E., and was afterwards in partnership with him for five years till 1883, when he took over his brother's practice. During that time he was engaged in the construction of the Isle of Wight (Newport Junction) Railway and Brading Harbour reclamation Railway and works. He retired from practice in 1917. He was F.S.I., A.M.I.C.E.

Besides numerous domestic and other buildings in the district which he designed and carried out, the following works may be specially mentioned: The Town Hall, Ventnor; Pavilion, Ventnor; "St. Lawrence Hall," the residence of Earl and Countess Jellison; "Craigie Lodge," the residence of the late Mrs. Craigie (John Oliver Hobbes); St. John's Church, Wroxall; St. Margaret's Church, Ventnor; Royal Spithead Hotel, Bembridge; and the Hattenberg Block, Royal National Hospital, Ventnor. Mr. Saunders was also engineer for the reconstruction of the Royal Victoria Pier, Ventnor; Sandown Pier and Ryde Tramway and Promenade Piers, and carried out the water supplies for several villages in the island, and the Ventnor to Whitwell and Whitwell to Niton main roads.

### R.I.B.A. PROBATIONERS

During the month of October 1929, the following were registered as Probationers of the Royal Institute:—

ANDERSON: ALEXANDER ROBERT FODDYCE, c/o Architectural Association, 24-36 Bedford Square, W.C.1.  
ANDREWS: BERNARD SAMUEL, "Treflegh," Cromer Road, Westm-super-Mare.

BANKS: ROBERT LOUIS, 24 Sandy Lodge Road, Moor Park, Herts.

BAZELEY: AILWYN GEOFFREY, Alvernia Hay, Penzance.

BENSON: ERIC SKIPWORTH, 235 Fog Lane, Didsbury, Manchester.

BENGER: LEONARD, 3 Spencer Street, Everton, Liverpool.

BICKNELL: PETER, 36 Edith Road, London, W.14.

BLOORE: David Burch, 79 Gladstone Road, Sparkbrook, Birmingham.

BOND: ROBERT OWEN, 409 Unthank Road, Norwich.

BRUCE: GEORGE ROBERT, 115, Church Road, Lewy Fell, Gateshead.

BRUCE, ROBERT ALEXANDER, P.O. Box 3590, Johannesburg, Transvaal, S. Africa.

BULL: THOMAS ALFRED, "Gleugarry," 27 Town Moor Avenue, Doncaster.

CAKE: RONALD HENRY, "The Tower," 28 Harold Road, Southsea, Portsmouth.

CARRICK: JAMES ANDREW, 92 St. Leonards Road, Ayr.

CLARKE: LEWIS ARTHUR, 65 Highfield Street, Foleshill, Coventry.

COLE: CHARLES ALAN CHOZIER, Cavendish Villa, Cavendish Place, Bath, Somerset.

COOK: ALEXANDER GARONER MARTIN, Craggy, Thornly Park Avenue, Paisley.

CHICKMAY: HUGH WAYDELL, Outhouse, Five Ashes, Sussex.

CRONIN: JOHN REGINALD PATRICK, St. Mary's Lodge, Louth, Lincs.

CUTLER: DUDLEY GAROOD, 3 The Close, Blackheath.

DEFRUIS: JOHN GRAY, c/o Dominion Bank, 3 King William Street, London, E.C.

DEMUTH: RONALD PITCHAM, Southbourne, Bournemouth.

DEWHURST, JAMES, Oakleigh Villas, Sutton-in-Ashfield, Notts.

DOMINY: JOHN NEWELL, 46 Lophill Road, Bournemouth.

DOUGLAS: JAMES, 16 Woodmill Terrace, Dunfermline, Fife.

DYSON: WILLIAM PARKER, Manor House, Hooton Roberts, Rotherham, Yorks.

FOSTER: JACK STROUD, 17 Whymark Avenue, Wood Green, N.22.

GIBSON: DONALD EVELYN EDWARD, Beech House, Elm Grove, Alderley Edge, Manchester.

GRAY: LOUIS HENRY, Sunningdale Nurseries, Windleisham, Surrey.

GREENWOOD: JOHN WILMOT, Two Barns, West Town, nr. Bristol.

GLEY: STUART, Elworth House, Fairfield Road, Widnes, Lincs.

HADDOCK: HAROLD MALLEY, The Villas, Boksor, nr. Chesterfield.

HADDON: DAVID STRACHAN, P.O. Box 4472, Johannesburg, South Africa.

HAGGER: BURT JAMES LESLIE, "Athena," 51 Park Avenue, Chelmsford, Essex.

HALKESTON: WILLIAM, 71 Fonthill Road, Aberdeen.

HANNETT: VICTOR, 38 Grange Street, Bradford, Manchester.

HAMMETT: STANLEY JOHN, c/o Messrs. Atkinson and Long, F.F.R.I.B.A., Chartered Architects, 4 Trumpington Street, Cambridge.

HARRIS (JUN.): LEWIE, 38, Boat Lane, Leeds.

HARVEY: JOHN HOOVER, Dallings, Lower Road, Gr. Bookham, Surrey.

HASTIE: HAMISH FANTON, 30 Glendevon Place, Murrayfield, Edinburgh.

HEAPE: EDWIN, 356 Rothston Road, Stapenhill, Burton-on-Trent.

HINCHESON: JOHN, 63 Gardner Street, Glasgow, N.W.

HOLL: WILFRED EDGAR, 15 Tournpion Street, Barry, South Wales.

IND: LESLIE, "Kedra," Bull Lane, Gerrards Cross, Bucks.

JAMES: WILLIAM JOHN, 4 Scott Street, Belle Vue, Shrewsbury.



- JONES: JOHN RHAGYFE, "Oaklands," Stepney Road, Pwll, Llanelli.
- LAY: GEORGE QUINE, 10 Struthfield Gardens, Barking.
- LEWIS: HERBERT JOHN WHITFIELD, Grassington, Mt. Pleasant, Chapstow, Mon.
- MARTIN-KAYE: DORIS AMY, 44 Doughty Street, London, W.C.1.
- McMULLEN: ALEXANDER LAWRENCE, 32 Evelyn Mansions, Carlisle Place, Victoria Street, S.W.1.
- MENICOLL: WALTER, 15 Baldwin Terrace, Dundee.
- MESSEUR: HOWEL, 81 Glamore Road, Swansea.
- MILLER: JOHN ARTHUR, Woodplumpton House, Woodplumpton, Preston, Lancs.
- MORGAN: JOHN, 28 Cowbridge Road, Bridgend, Glam.
- MURLEY: JEAN ISOBEL, 45 Pembroke Villas, London, W.11.
- MORTON: ROBERT STEVENSON, 33 Mortonhall Road, Edinburgh.
- MURRAY: ALEXANDER, 40A Eleanor Street, Troyville, Johannesburg, S.A.
- O'CONNOR: KENNETH STANLEY, "Cliffe Dean," Durham Road, Southchurch, Southend-on-Sea.
- PARKER: LESLIE THOMSON, 111 Scott Road, Pitmeor, Sheffield.
- PEYTERLEY: CHARLES ERIC, 22 Harlow Moor Drive, Harrogate.
- PRICE: JOHN CECIL BENNETT, 14 Bedford Place, London, W.C.1.
- PRITCHARD: CYRIL, 36 Kingsway Avenue, West Point, Leyenshulme, Manchester.
- RICHARDSON: HAROLD, 26 Shakespeare Road, St. Marks, Cheltenham.
- RICHARDSON: JOHN CLIFFORD, 79 School Road, Stretford, Manchester.
- RICKETTS: ERIC JAMES, 25 Lennox Street, Weymouth, Dorset.
- RIPPEL: SIDNEY JAMES, 5 Ashbrook Road, Highgate, N.19.
- ROBERTS: ALFRED HAROLD, 10 Eaton Road, Cressington Park, Liverpool.
- ROBERTS: GLYN, "Rutherglen," Haymans Green, West Derby, Liverpool.
- SCOTT: WILLIAM, 177 Chorley New Road, Bolton.
- SHARP: COLIN BASIL, Windmill Road, Flitwick, Bedford.
- SILK: AUDREY MAXY, 15 Oppidans Road, Primrose Hill, London, N.W.3.
- STANFORD: ALAN HARTHOLOMEW, 75 Norwood, Beverley.
- STEELE: DIARMAD RONALD, 17 Park Terrace, Glasgow, C.3.
- STEVENS: KENNETH ARTHUR, 278 Cowley Road, Oxford.
- SUTHERLAND: ALASTAIR CAMERON, 20 Ashton Road, Glasgow, W.2.
- TAYLOR: DOUGLAS SEITH, St. Brendans, Wimbledon, S.W.19.
- THOMAS: ARTHUR SELWYN, "Heddfan," Upper Killay, Swansea.
- THOMPSON: ARTHUR, c/o 16 Wharnciffe Street, Barnsley.
- TOMLINSON: HAROLD, 14 Trumpington Street, Cambridge.
- WALSH: RAYMOND COLLINGS, "Inglewood," Lime Grove Thornton, Blackpool.
- WARD: BENJAMIN, 20 Cemetery Road, Pudsey, nr. Leeds.
- WHYMAN: GORDON PHILIP, Mendip, Nursery Lane, Wilmslow, Cheshire.
- WHYTE: GEORGE JOHNSTON, 8 Gorland Place, Dundee.
- WILLIAMS: ARTHUR ISLWYN, Maesdyerw, Llanfihangel-ar-arth, S.O. Carmarthenshire.
- WINTERBURN: THOMAS FRED, 12 Lansdowne Terrace, Smirtheite Street, Wakefield.
- WRIGHT: FREDERICK ROLAND, 66 Fosse Road South, Leicester.
- BRITTON: EDWARD, Gladstone Street, Soundwell, Staple Hill, Bristol.
- BRUCE: ROBERT ALEXANDER, P.O. Box 3590, Johannesburg, Transvaal, South Africa.
- FRASER: JOHN STRACHAN, 22 Woodmill Road, Dunfermline.
- GIBSON: DONALD EVELYN EDWARD, "Beech House," Elm Grove, Alderley Edge, Manchester.
- HADDON: DAVID STRACHAN, P.O. Box 4472, Johannesburg, South Africa.
- MILLER: JOHN ARTHUR, Woodplumpton House, Woodplumpton, Preston, Lancs.
- ORRIBROD: FRANCIS JAMES MASSEY, 16 Beech Grove, Hoole, Chester.
- PATTERSON: JOHN, Bellevue, Ladybank, Fife.
- PULLEN: ROGER KENDALL, 3 The Vigo, Northampton.
- SCOTT: WILLIAM, 177, Chorley New Road, Bolton.
- STEELE: GORDON, Billinge End, Blackburn.
- TAYLOR: DOUGLAS SEITH, St. Brendans, Wimbledon, S.W.19.
- TIMMS: GORDON JAMES, Coddington Hall, Malpas, Cheshire.

# THE NATIONAL ASSOCIATION OF WATER USERS.

Members are reminded that the National Association of Water Users, on which the R.I.B.A. is represented, exists for the purpose of protecting the interests of consumers. Members who experience difficulties with water companies, etc., in connection with fittings are recommended to seek the advice of the Association. The address of the Association is 46 Cannon Street, London, E.C.4.

# R.I.B.A. STATUTORY EXAMINATION FOR DISTRICT SURVEYOR AND THE EXAMINATION FOR BUILDING SURVEYOR.

The R.I.B.A. Statutory Examination for the office of District Surveyor under the London Building Acts, and the Examination for Building Surveyor under Local Authorities, will be held at the R.I.B.A., London, on 7, 8 and 9 May 1930.

The closing date for receiving applications for admission to the Examinations, accompanied by the fee of £3 3s., is 16 April 1930.

Full particulars of the Examinations and application forms can be obtained from the Secretary R.I.B.A.

# NOTES FROM THE MINUTES OF THE COUNCIL.

21 October 1929.

## OBITUARY.

The late Sir Robert Lorimer, K.B.E., A.R.A., R.S.A. (F.), President of the Royal Incorporation of Architects in Scotland.—The Council passed a resolution expressing their sincere sympathy with Lady Lorimer and the Royal Incorporation of Architects in Scotland in the great loss which they had suffered through the death of Sir Robert Lorimer.

The late Mr. Milton Medary (Hon. Corresponding Member).—The Council passed a resolution expressing their deep sympathy with the American Institute of Architects in the great loss which they had sustained through the death of Mr. Milton Medary, Past-President of the American Institute.

## INDIAN INSTITUTE OF ARCHITECTS.

The Indian Institute of Architects was formally admitted as an Allied Society.

# ELECTION OF STUDENTS R.I.B.A.

The following were elected as Students at the meeting of the Council held on 4 November 1929:

BAMBER: STANLEY KELWAY, 80 Baxter Avenue, Southend-on-Sea, Essex.



#### THE TWELFTH INTERNATIONAL CONGRESS OF ARCHITECTS, BUDAPEST, SEPTEMBER 1930.

It was decided to accept the invitation to take part in the above Congress, and to appoint a small Committee to consider and report upon the matters which will be discussed at the Congress.

#### SMOKE ABATEMENT.

On the recommendation of the Science Standing Committee, it was agreed to approve the report of the Smoke Abatement Sub-Committee for publication in the JOURNAL.

#### ANNUAL CONFERENCE OF THE NATIONAL ASSOCIATION FOR THE PREVENTION OF TUBERCULOSIS.

A report was submitted by Mr. T. R. Milburn [F.], the R.I.B.A. delegate at the recent Annual Conference of the National Association for the Prevention of Tuberculosis.

The thanks of the Council were conveyed to Mr. Milburn, and it was agreed to publish the report in the JOURNAL.

#### AUTOGRAPH OF INIGO JONES.

The Secretary reported that Mr. Sigismund Goetze had kindly presented the R.I.B.A. with an autograph of Inigo Jones.

The cordial thanks of the Council were conveyed to Mr. Goetze for his generous gift.

#### SURVEY OF LYMORE HALL.

It was agreed to give a contribution of £5 5s. to the Society for the Protection of Ancient Buildings towards the cost of making a survey of Lymore Hall, which is to be demolished shortly.

#### BRITISH ENGINEERING STANDARDS ASSOCIATION.

*Technical Committee on Portland Blast Furnace Cement.*—Mr. W. T. Bendyn [A.] was appointed as the R.I.B.A. representative on the above Committee of the B.E.S.A.

*Sub-Committee on Building Lime.*—Mr. W. E. Vernon Crompton [F.] was appointed as the R.I.B.A. representative on the above Committee of the B.E.S.A.

*Technical Committee on Nomenclature (Symbols and Abbreviations used in Engineering).*—Mr. G. N. Kent [L.] was appointed as the R.I.B.A. representative on the above Committee of the B.E.S.A.

*Committee on Standardisation of "Fire Resistance and Incombustibility."*—Mr. A. H. Barnes [L.] was appointed as the R.I.B.A. representative on the above Committee of the B.E.S.A.

#### THE FELLOWSHIP.

The Council, by a unanimous vote, elected the following architects to the Fellowship under the powers defined in the Supplemental Charter of 1925:—

Mr. Alun G. Brace.

Mr. Clement George [L.] (Aberdeen).

#### MEMBERSHIP.

Election, 2 December 1929.—Applications for Membership were approved as follows:—

As Hon. Fellow	..	..	1	application.
As Hon. Associate	..	..	1	"
As Hon. Corresponding Member	..	..	1	"
As Fellows	..	..	20	applications
As Associates	..	..	81	"

Reinstatement.—The following ex-members were reinstated:—

As Fellow:	Edgar Sage.
As Associates:	John Boyd Lawson.
	Herman Alexander Scott.
As Licentiates:	George Cooper.
	Ernest Robert Walker.

#### RETIRED FELLOWSHIP.

The following member was transferred to the Retired Fellowship:—

Graham Clifford Awdry [F. 1888].

APPLICATION FOR ELECTION AS LICENTIATE UNDER SECTION III (F) OF THE SUPPLEMENTAL CHARTER OF 1925.

One application was approved.

## Notices

### THE THIRD GENERAL MEETING.

The Third General Meeting (Business) of the Session 1929-30 will be held on Monday, 2 December 1929, at 8 p.m., for the following purposes:—

To read the Minutes of the General Meeting (Ordinary) held on 18 November 1929; formally to admit Members attending for the first time since their election.

To proceed with the election of candidates for membership whose names were published in the JOURNAL for 9 November 1929 (pp. 34-37).

To consider, and, if thought fit, to approve the Council's proposal that the references to the Assessor's Fee should be omitted from the Regulations for Architectural Competitions, and that these references contained in Clause 1 (paragraphs 2 and 3) of the Regulations should be transferred to the Scale of Professional Charges and the "Directions to Assessors."

### INFORMAL DISCUSSION OF MATTERS OF PROFESSIONAL INTEREST.

At the conclusion of the above business meeting, there will be an informal and private discussion of matters of current professional interest or concern. Members are invited to bring up for discussion, with or without notice, subjects of professional interest or difficulty.

### R.I.B.A. LONDON ARCHITECTURE MEDAL, 1929.

The attention of members is drawn to the Form of Nomination and the conditions, subject to which the award will be made, for a building completed within the County of London during the three years ending 31 December 1929, issued separately with the current number of the JOURNAL. Any member of the Royal Institute is at liberty to nominate any building for consideration by the Jury.

The Nomination Forms should be returned to the Secretary R.I.B.A. not later than 28 February 1930.

The Medal for the building completed between 1926 and 1928 will be presented to Messrs. Easton and Robertson, F.F.R.I.B.A., for the Royal Horticultural Society's New Hall, Greycoat Street, Westminster, at the General Meeting of the R.I.B.A. to be held on 6 January 1930.



### EXHIBITION OF THE WORK OF THE LATE BERTRAM GROSVENOR GOODHUE [Hon. Corr. Member].

Through the kindness of Professor William Emerson [Hon. Corr. Member], Director of the Department of Architecture, Massachusetts Institute of Technology, a collection of pen and pencil drawings by the late Bertram Grosvenor Goodhue has been lent to the R.I.B.A. for exhibition. The Exhibition will be open daily between the hours of 10 a.m. and 8 p.m. until Saturday, 30 November (5 p.m.).

### CONDITIONS OF CONTRACT.

In answer to many inquiries made by members regarding the recognised Form of Contract, the minute of the General Meeting (Business) held on 10 June 1929, is reprinted below for information:—

"RESOLVED that this meeting of the R.I.B.A. after full consideration of the terms of the proposed draft of the New Form of Contract now again submitted as in amendment of the existing and agreed 1909 Form of Contract, is unable to accept the same, but concurrently renews its offer to reconsider the amendment of the 1909 Form where necessary."

### ELECTION OF MEMBERS, 7 APRIL 1930.

Associates who are eligible and desirous of transferring to the Fellowship are reminded that if they wish to take advantage of the election to take place on 7 April 1930 they should send the necessary nomination forms to the Secretary R.I.B.A. not later than Saturday, 11 January 1930.

### LICENTIATES AND THE FELLOWSHIP.

The attention of Licentiates is called to the provisions of Section IV, Clause 4 (b) and (c) of the Supplemental Charter of 1925. Licentiates who are eligible and desirous of transferring to the Fellowship can obtain full particulars on application to the Secretary R.I.B.A., stating the clause under which they propose to apply for nomination.

## Competitions

### ABERYSTWYTH: PROPOSED WINTER GARDEN AND BAND PAVILION.

The Aberystwyth Corporation invite architects to submit, in open competition, designs for a Winter Garden and Band Pavilion.

Assessor: Mr. Arnold Thornely [F.].

Premiums: £100, £70 and £30.

Last day for receiving designs, 1 January 1930. Conditions of the competition may be obtained on application to the Town Clerk, Town Hall, Aberystwyth. Deposit £2 2s.

### ACCRINGTON: NEW POLICE AND FIRE STATIONS.

The Accrington Corporation invite architects to submit, in open competition, designs for new Police and Fire Stations.

Assessor: Mr. Herbert J. Rowse [F.].

Premiums: £250, £150 and £100.

Last day for receiving designs, 28 February 1930. Conditions of the competition may be obtained on application to the Town Clerk, Town Hall, Accrington. Deposit £2 2s.

### DUMFRIES: PROPOSED TOWN HALL AND MUNICIPAL CHAMBERS.

The Provost, Magistrates and Councillors of the Burgh of Dumfries invite architects, resident or practising in Great Britain, to submit, in open competition, designs for a Town Hall and Municipal Building which it is proposed to erect upon an area of ground, being the site of the old Town Hall and Municipal Offices in Buccleuch Street, Dumfries.

Assessor: Sir George Washington Browne, P.R.S.A.

Expenditure: £45,000.

Date of delivery: Noon on 7 December 1929.

Premiums: £300, £200, and £100.

Conditions of the competition and block plan of the site may be obtained on application to the Town Clerk, with a deposit by crossed cheque of £2 2s.

### GUILDFORD: NEW MUNICIPAL BUILDINGS

The Guildford Corporation propose to invite local architects to submit, in competition, designs for new municipal buildings.

Assessor: Mr. T. S. Tait [F.].

Premiums: £50 and £25.

[Conditions are not yet available.]

### KINGSTON-UPON-HULL: NEW STREET FROM PARAGON STATION TO BEVERLEY ROAD.

The Hull Corporation invite architects to submit schemes in competition for the façades of a new street and openings to adjoining streets to be formed from the Paragon Station to the Beverley Road.

Assessor: Sir Reginald Blomfield, R.A., Litt.D., M.A., F.S.A., P.P.R.I.B.A.

Premiums: £750, £350 and £150.

Latest date for receiving designs: 12 (noon), 30 November 1929.

Conditions of the competition may be obtained on application to the Town Clerk, Guildhall, Hull. Deposit, £1 1s.

### LIVERPOOL: PROPOSED PIER HEAD IMPROVEMENTS.

The Liverpool City Council propose to offer premiums of 1,000 guineas and 500 guineas in connection with a competition for the improvement of the amenities of the Pier Head.

[Conditions are not yet available.]

### SWANSEA: MUNICIPAL BUILDINGS.

The Swansea Corporation invite architects to submit, in open competition, designs for new municipal buildings.

Assessor: Mr. Henry V. Ashley, V.-P.R.I.B.A.

Premiums: £750, £500, £300 and £200.

Last date for receiving designs, 18 January 1930. Conditions of the competition may be obtained on application to the Town Clerk, Town Hall, Swansea. Deposit £2 2s.



## ANZAC MEMORIAL BUILDING, SYDNEY, N.S.W.

The Trustees of the Anzac Memorial Building invite competitive designs for an Anzac Memorial to be erected in the City of Sydney, New South Wales.

The qualification of competitors is defined in the conditions of competitions as follows:—

"The competition is limited to Australians who are legally qualified as architects in New South Wales or who are legally qualified to practice architecture outside of New South Wales provided that no competitor shall be employed as architect to the work until he has been duly registered as a legally qualified architect in New South Wales or until other arrangements, satisfactory to the Trustees and to the Board of Architects of N.S.W., shall have been made.

"Nothing in these conditions shall preclude the association of an Australian sculptor with a competitor either during the competition or in the execution of the work.

"For the purpose of this competition 'Australian' shall mean a natural born British subject who has practised or worked in Australia either as a principal or an assistant. Provided that no Australian soldier within the meaning of Part 4 of the Australian Soldiers' Repatriation Act 1920 shall be excluded by this clause."

The competition will be conducted in two stages; the closing date for the first stage is 24 January 1930. The cost of the Memorial is to be £75,000. The conditions of competition have been approved by the Institute of Architects of New South Wales.

Conditions of competition may be obtained from the office of the Trustees of the Anzac Memorial Building, 3rd floor, Wingello House, Angel Place, Sydney, or from the offices of the Institutes of Architects in the various Australian States, or from the office of the Agent-General for New South Wales, Australia House, London.

## OLYMPIA, LONDON: "PAVILION OF LIGHT."

The *Daily Mail*, in conjunction with the General Electric Company, Ltd., is organising a competition in connection with the lighting, heating, decorating and furnishing, and electrical equipment of the rooms of a "Pavilion of Light," which will be erected at the Ideal Home Exhibition at the Olympia, London, in March 1930:

## Jury of Assessors:

Sir Edwin Lutyens, R.A., F.S.A. [F].  
Sir Duncan Watson, J.P., M.I.E.E.  
Mr. Philip Connard, R.A.  
Mr. Oliver P. Bernard  
Mr. Douglas G. Tanner [L].  
Mr. G. G. Wornum [F].

Premiums: For each room, 100 guineas, 25 guineas, 20 guineas.

Last day for receiving designs: 14 December 1929.

Conditions of the competition may be obtained on application to the *Daily Mail* Electrical Competition, Carmelite House, E.C.4.

## Members' Column

## PARTNERSHIP WANTED.

FELLOW R.I.B.A. wide experience, own practice, London for many years, and specialised in work that has been superseded by Government action. Capable. Master of all details pertaining to busy practice. Desirous of joining established practice as partner. Capital available.—Box 1110, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

F.R.I.B.A., with extensive experience, is desirous of entering into Partnership with another keen and well-established Architect with a view to sharing responsibilities, and increasing clientele, some capital available.—Apply in first instance to Box No. 2109, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

## NOTICE OF REMOVAL.

Messrs. CACKETT & BURNS DICK beg to notify that they have removed to 21 Eldon Place, Newcastle-upon-Tyne, and request that all communications in future be kindly sent there. It is also to be noted that the style of the firm hereafter will be "CACKETT, BURNS DICK & MACKELLAR."

## ASSISTANCE OFFERED.

ASSOCIATE practising in West End, temporarily having insufficient work, would welcome any proposal to render assistance to another Architect or Surveyor.—Reply Box 3082, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

## ARCHITECTURAL ASSISTANT.

Candidates must have passed the Associateship examination of the R.I.B.A., or possess special qualifications in architectural design. Salary £350 per annum. Forms of application may be obtained upon application, enclosing stamped, addressed, foolscap envelope, to Mr. F. Willey, F.R.I.B.A., 34 Old Elvet, Durham. Last day for receiving applications, 6th December, 1929.

## PRACTICE WANTED.

WEST RIDING Architect and Surveyor desires to purchase Practice anywhere in England. Must bear every investigation. Would consider Partnership.—Apply Box 1210, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

## OFFICE ACCOMMODATION.

ASSOCIATE, with capable staff and good offices in Bloomsbury, is willing to allow use of his office by provincial members for correspondence and interviews.—Apply Box 1210, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

## OFFICE ACCOMMODATION WANTED.

WANTED by a Fellow of the Institute, an office within easy access of Charing Cross or Westminster. Rent must be moderate.—Box 1211, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

## Minutes II

SESSION 1929-1930.

At the Second General Meeting (Ordinary) of the Session, 1929-1930, held on Monday, 18 November, 1929, at 8 p.m.

Sir Baniaster Fletcher, F.S.A., President, in the chair.

The attendance book was signed by 20 Fellows (including 9 members of Council), 18 Associates (including 1 Member of Council), 2 Licentiates (including 1 Member of Council), 2 Hon. Associates, and a large number of visitors.

The Minutes of the Opening General Meeting held on 4 November, 1929, having been published in the *JOURNAL*, were taken as read, confirmed, and signed as correct.

The Hon. Secretary announced the decease of—

His Honour Judge Athletley-Jones, K.C., transferred to Honorary Associateship 1925.

Milton Bennett Medley, Honorary Corresponding Member. Past President of the American Institute of Architects. Member of the National Commission of Fine Arts.

Thomas Hastings, Hon. M. Arch. (Liverpool), Honorary Corresponding Member.

Mr. Hastings was awarded the Royal Gold Medal in 1922.



Roger Bradley Barker, elected Fellow 1921.  
 Harry Berwick, elected Fellow 1905.  
 Walter Ashbridge Chambers, elected Fellow 1907.  
 Robert Joseph Hadden, elected Fellow 1907.  
 James MacIntyre Henry, elected Fellow 1903.  
 John Hunt, F.S.I., elected Associate 1899, Fellow 1903.  
 Joseph Leeming, elected Fellow 1901.  
 Sir Robert Stodart Lorimer, K.B.E., Hon. LL.D., A.R.A.,  
 R.S.A., President of the Royal Incorporation of  
 Architects in Scotland. Member of the Council and of  
 the Allied Societies' Conference.  
 Albert William Smith, elected Fellow 1888.  
 Arthur William Yeomans, elected Fellow 1903.  
 Frank West Rich, elected Fellow 1898, transferred to  
 Retired Fellowship in 1928.  
 Theodore R. Saunders, F.S.I., Retired Member of the  
 Society of Architects. Admitted 1925.  
 Richard Ward Briggs, elected Associate 1923, Institute  
 Medallist (Drawings) 1925.  
 Colin Stanley Brothers, Elected Associate 1922.  
 Ernest Edward Fetch, Elected Associate 1895.  
 Charles Hale, Elected Associate 1899.  
 Evelyn Arthur Helliart, Elected Associate 1888. (Re-  
 signed 1928). Donaldson Medallist 1886-87.  
 Thomas Gildart Mansell, Elected Associate 1892.  
 Edward Wallis Mountford, Elected Associate 1920.  
 Richard McMinnies Roberts, Elected Associate 1902.  
 William Whitehead, Elected Associate 1907.  
 John Ellis, Elected Licentiate 1911.  
 Alfred Henry Lister, Transferred to Licentiate Class  
 1925.  
 Mansfield Price, Elected Licentiate 1910.  
 Sidney Thorpe, Transferred to Licentiate Class 1925.  
 A. William West, Elected Licentiate 1910.

The Chairman announced that by a resolution of the Council  
 the following had ceased to be members of the Royal Institute:

#### AS FELLOWS.

Frederick Batchelor.  
 Robert Sidney Kerr.

#### AS ASSOCIATES.

Alfred Vincent Booker.  
 Harold William Britton.  
 Christopher John Brooks.  
 John Percival Wilkins Davies.  
 William Jean Theodore Godwin.  
 Geoffrey Walker Hill.  
 Alfred Ralph Keighley.  
 William Stanley Minty.  
 William John Vaughan Williams.  
 John Yratt.

#### AS LICENTIATES.

Ernest Eadie Bird.  
 Francis William Brook-Greaves.  
 James Brown.  
 George Carter.  
 Sydney Rhys Crocker.  
 George Watesby Davis.  
 David Ditchburn.  
 Frederick Edward Halford.  
 Edward Joseph Harbottle.  
 John Carmichael Ireland.  
 Herbert Leete.  
 John Gould Oliver.  
 Ernest Pawley.  
 Frank Ralph Priest.  
 Major Albert Joseph Randall.  
 Henry Marshall.  
 Alexander Davidson Stewart.

Mr. Alan E. Munby, M.A. (Cantab.) [F.], having read a  
 paper on "The Design of Science Buildings," a discussion  
 ensued, and on the motion of Mr. H. T. Tizard, C.B., F.R.S.,  
 Rector of the Imperial College of Science and Technology,  
 seconded by Sir Richard Gregory, Hon. D.Sc., Hon. LL.D.,  
 Editor of *Nature*, a vote of thanks was passed to Mr. Munby  
 by acclamation, and was briefly responded to.

The President announced that the Council of the Essex,  
 Cambridge and Hertfordshire Society of Architects had  
 awarded the R.I.B.A. Bronze Medal and Diploma, for a build-  
 ing of outstanding merit erected within the area covered by  
 the Society, to Mr. Basil Oliver [F.] for his building "The Rose  
 and Crown" Public House, Cambridge.

The President also expressed the sincere and grateful thanks  
 of the Essex Society for the kindness of the Council and  
 Members of the Royal Institute in presenting the Medal  
 and Diploma to them for the purpose of the Award.

The proceedings closed at 9.40 p.m.

### ARCHITECTS' BENEVOLENT SOCIETY (Insurance Department).

#### HOUSE PURCHASE SCHEME (for property in Great Britain only)

The Society is able, through the services of a leading  
 Assurance Office, to assist an Architect (or his client) in  
 securing the capital for the purchase of a house for his  
 own occupation, on the following terms:—

#### AMOUNT OF LOAN.

Property value exceeding £666, but not exceeding  
 £2,500, 75 per cent. of the value.

Property value exceeding £2,500, but not exceeding  
 £4,500, 66½ per cent. of the value.

The value of the property is that certified by the Sur-  
 veyor employed by the Office.

#### RATE OF INTEREST, 5½ per cent. gross REPAYMENT.

By means of an Endowment Assurance which dis-  
 charges the loan at the end of 15 or 20 years, or at the  
 earlier death of the borrower.

#### SPECIAL CONCESSION TO ARCHITECTS.

In the case of houses in course of erection, it has been  
 arranged that, provided the Plan and Specification have  
 been approved by the Surveyor acting for the Office,  
 and the amount of the loan agreed upon, and subject to  
 the house being completed in accordance therewith,  
 ONE HALF of the loan will be advanced on a certificate  
 from the Office's Surveyor that the walls of the house  
 are erected and the roof on and covered in.

NOTE.—In 1928, over £20,000 was loaned to archi-  
 tects under this scheme, and as a result over £100 was  
 handed to the Benevolent Fund.

If a quotation is required, kindly send details of your  
 age next birthday, approximate value of house and its  
 exact situation, to the Secretary Architects' Benevolent  
 Society, 9 Conduit Street, London, W.

#### R.I.B.A. JOURNAL.

DATES OF PUBLICATION.—1929: 7, 21 December; 1930:—  
 11, 25 January; 8, 22 February; 8, 22 March; 12, 26 April;  
 10, 24 May; 7, 21 June; 12 July; 9 August; 20 September;  
 18 October.



# Journal of the Royal Institute of British Architects

THIRD SERIES

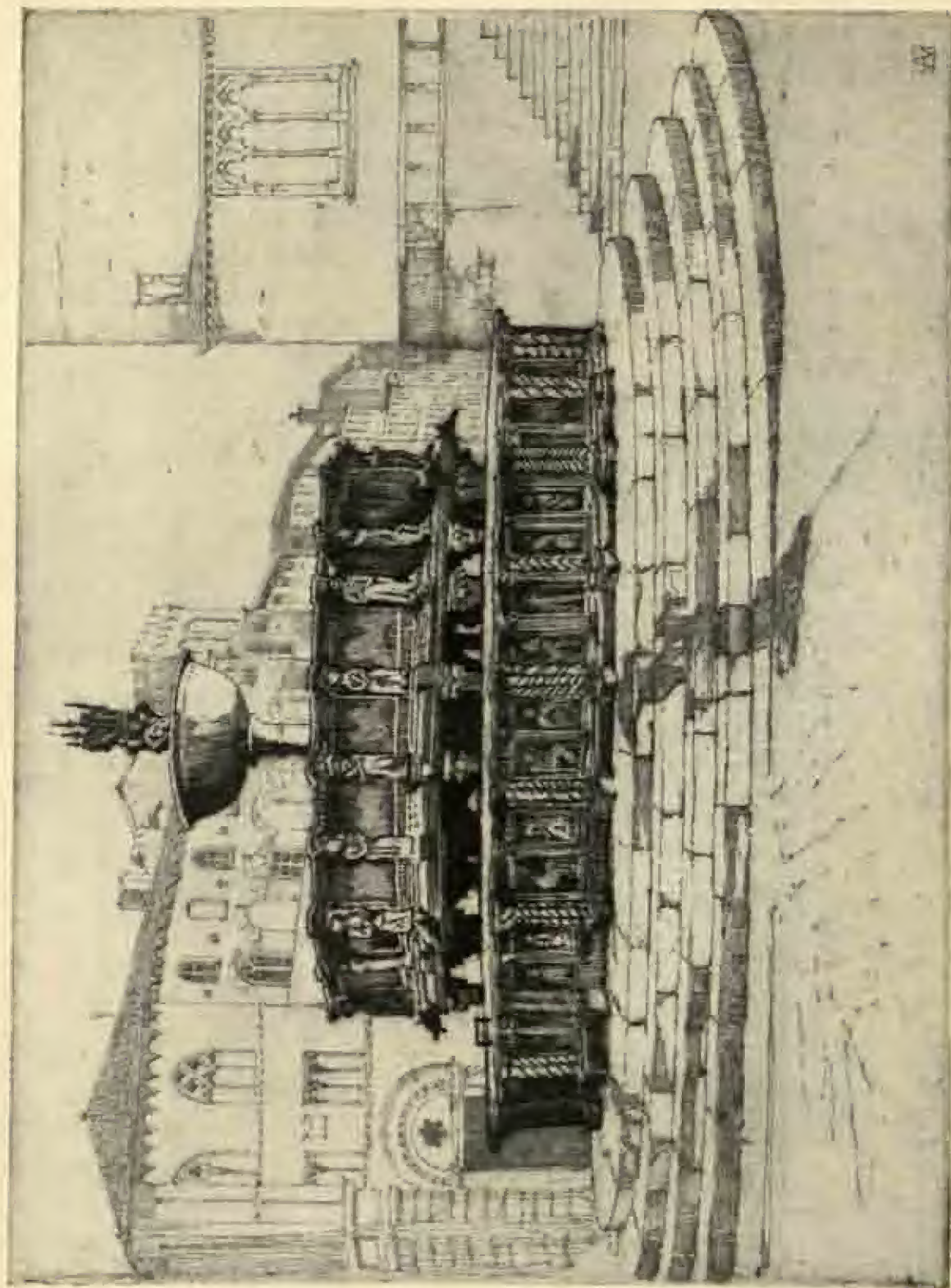
VOL. XXXVII. No. 3

7 DECEMBER 1929

## Contents for 7 December 1929

	Page
LA FONTANA MAGGIORE, PERUGIA. An Etching by W. H. Ansell [F.] .. .. .	Frontispiece
THE DESIGN OF SCIENCE BUILDINGS. By Alan E. Munby, M.A., Cantab. [F.] .. .. .	75
DISCUSSION .. .. .	85
THE IMPERIAL COLLEGE OF TROPICAL AGRICULTURE, TRINIDAD. By Major H. C. Corlette, O.B.E., F.S.A. [F.] .. .. .	90
REVIEWS:	
LECTURES ON ARCHITECTURE. By W. E. Vernon Crompton [F.] .. .. .	96
DESCRIPTION DE LA BELLE ET GRAND COLONNE HISTORIQUE DRESSÉE A L'HONNEUR DE L'EMPEREUR THÉODOSE. By A. E. Henderson [F.] .. .. .	96
CORRESPONDENCE:	
SESSIONAL PAPERS AND THE CLOSURE. By Alan E. Munby, M.A., Cantab. [F.] .. .. .	96
JALIFRED AND GARIEL AND ANOR P. JOSEPH SCHLIMM. By Wilfrid Travers [F.] .. .. .	97
LORD CHARLEMONT. By S. B. Caulfield [F.] .. .. .	97
THE LATE BERTRAM GROSVENOR GOODHIE. By Wm. Adams Delano .. .. .	97
DRAWINGS AND SKETCHES BY THE LATE BERTRAM GROSVENOR GOODHIE. By Major H. C. Corlette, O.B.E., F.S.A. [F.] .. .. .	98
THE PROPOSED CHAZING CROSS BRIDGE. Sir Basil H. Fletcher, F.S.A., President; Lord Esher; W. R. Davidge [F.] .. .. .	100
ALLIED SOCIETIES:	
ESSEX, CAMBRIDGE AND HERTS SOCIETY OF ARCHITECTS .. .. .	103
THE GLOUCESTERSHIRE ARCHITECTURAL ASSOCIATION .. .. .	104
MANCHESTER SOCIETY OF ARCHITECTS .. .. .	104
SOUTH WALES INSTITUTE OF ARCHITECTS .. .. .	104
WEST YORKSHIRE SOCIETY OF ARCHITECTS .. .. .	105
R.I.B.A. PROBATIONERS .. .. .	106
NOTES FROM MINUTES OF COUNCIL .. .. .	107
NOTICES .. .. .	107
QUERIES AND REPLIES .. .. .	108
COMPETITIONS .. .. .	109
MEMBERS' COLUMN .. .. .	110
MINUTES .. .. .	110
A.B.S. SCHEME OF INSURANCE .. .. .	112





LA FONTANA MAGGIORE, PERUGIA  
From an Etching by W. H. Ansell [F.]





WESTERN RESERVE UNIVERSITY SCHOOL OF MEDICINE: FRONT ELEVATION

## The Design of Science Buildings

BY ALAN E. MUNBY, M.A. CANTAB. [F].

[Read before the Royal Institute of British Architects on Monday, 18 November 1929.]

THE design of science buildings presents so wide a field for discussion that I have found it difficult to decide upon the most useful way of presenting the subject in the short time at disposal, and the difficulty is not reduced by the fact that at least five-and-twenty years seem to have elapsed since this topic in any general sense came before you. After a few introductory comments on the claims of science I propose to say something upon the classes of science buildings and general points in reference to design, then to deal with the special requirements of three fundamental sciences, followed by a short account of their fittings in lecture rooms and laboratories. A few words on accessory rooms and service supplies will be followed by some distinctions between teaching and research institutions. A third of my slides will illustrate, and I hope relieve, the technicalities of the paper, the remainder will be shown at the end as examples of specific buildings.

The progress of modern civilisation is mainly due to the work of the scientist, in fact it would not

be easy to find any material benefit which has prolonged life, or by improving the condition of humanity has given opportunities for mental development, which has not initially sprung from the laboratory. To refer to a few recent instances only, work on metallic alloys has alone rendered many engineering developments possible, biological research has conferred immense benefits on medicine, animal life, and agriculture—benefits which will greatly increase in the near future, while chemistry has recently produced rayon, or artificial silk, which already employs 300,000 workers in this country. Apart from practical issues we have of course the great educational value of science, taught nowadays with a broad conception linking it with the humanities.

These facts admitted, it is somewhat astonishing that as a nation we take so supine a view of the scientist and his work.

We have only a small band of politicians who know anything about science, nor does the public at large display any interest in it; but there is no doubt whatever that though our national wealth



and initiative have in the past kept us in the forefront of the world, failure to appreciate the claims of science is going to relegate us to a secondary position among the nations in the next half century.

When we look at the picture which shows a design for a general laboratory less than a century ago we may feel inclined to congratulate ourselves on our advance, but we cannot afford to cry halt until the spirit of science has permeated all our industries.

Our purpose to-night is to consider how the material requirements of the scientist can best be met, and economy demands that they be met in the most efficient manner. It is often forgotten that capital expenditure is only current expenditure at market rate of interest, and if such interest be added to the cost of running a building the difference in annual charges between building well and parsimoniously will be found to be remarkably small, allowing nothing for increased efficiency obtained for a generous expenditure of capital. I do not refer to lavish architectural adornment, but to technical completeness; and while no architect should be asked to erect a building devoid of character, the scientist often complains with justice of outlay in elaboration of detail which he would rather have expended on his apparatus.

Science buildings may have a purely educational purpose, as in a school or university, or may be devoted to research which may embrace a variety of subjects, or be confined to some special work. Again, many buildings have to combine these functions, while some of our technical schools have also to include training in crafts which involve trade equipment outside our discussion. In considering branches of science it should always be remembered that there is no real division of nature into compartments; such groupings as exist are merely a matter of convenience, and though fairly sharp lines of demarcation may be drawn for elementary work, in advanced and in research work these divisions tend towards fusion. Thus, though elementary chemistry, physics, and biology present defined boundaries as regards material equipment, such subjects as bacteriology, pharmacology, and histology embrace the former subjects, demanding similar laboratory equipment, with refinements and extensions for their special spheres of work.

One of the great difficulties of the architect lies in the absence of any consensus of opinion on the part of educationists and scientists as to the

appropriate equipment for specific subjects, and it not infrequently happens that conscientious efforts to provide what is asked for excite considerable criticism of the design by a successor in charge of a department. I have more than once suggested to men of science that they might well get together and formulate some outline of requirements for particular subjects and grades of work, which I think could be done without hindering development. This suggestion has not met with any response, the answer being that everyone has his own special ideas, but the scientist is apt to forget that he is often promoted to some higher sphere while his building has to remain with any special foible visited on the architect as his shortcoming. As things stand we must as a profession generally find out what our scientist wants and reconcile it with the funds at our disposal, and it must be admitted that most scientists are prepared to take a great deal of trouble in formulating their requirements. I cherish the remark of a professor to myself that he would much rather have an architect who knew nothing about science buildings than one who thought he knew something. Notwithstanding this generous measure of help from clients, occasions often arise upon which an architect has to advise a lay committee, and it is then that technical knowledge is essential for a successful outcome.

To consider a few generalisations before dealing with specific subjects, a symmetrical plan should be aimed at, departments being balanced as far as possible with regard to the central location of any rooms which may have to be used in common.

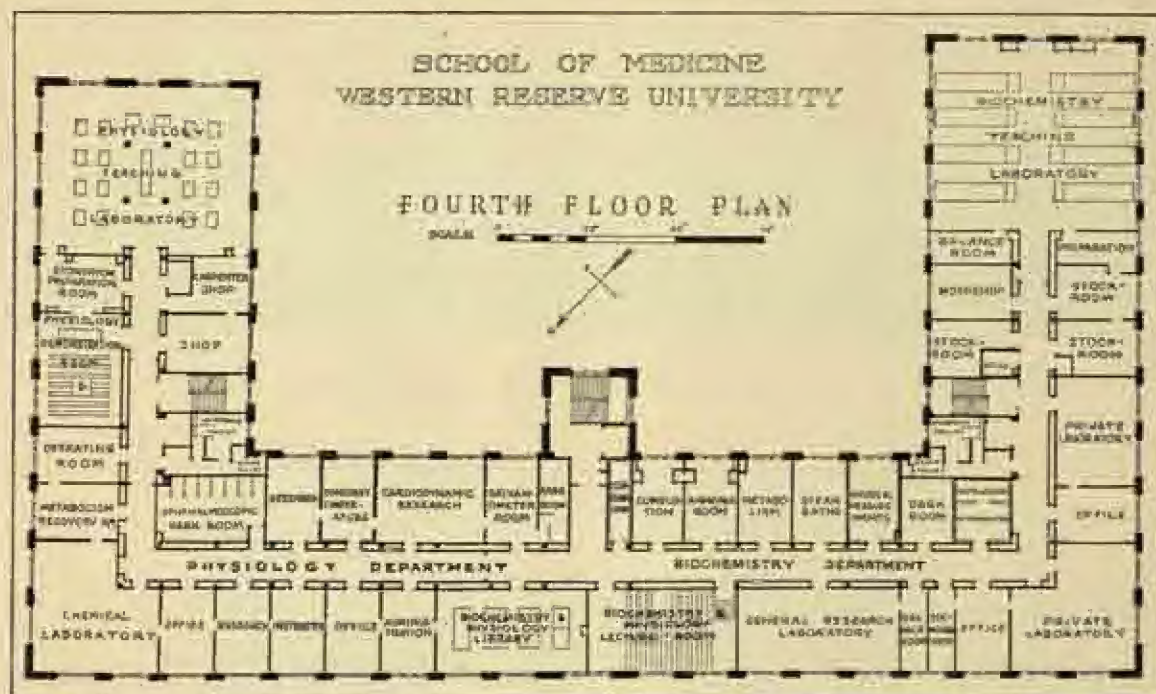
In large buildings the adoption of a unit will often simplify construction and assist in the allocation of space. For example a 12 foot frontage in rooms say 18 feet deep might be taken. With such a unit it is possible to obtain a rapid mental picture of space allocation to different subjects in the early stages of planning. As changes are inevitable as much elasticity as possible should be obtained by the use of partitions which are not constructional. The solidity of walls forming small rooms in many old buildings prove a great embarrassment when alterations are projected, and who can foresee the laboratory of fifty years hence. On this subject of changes I once heard the late Headmaster of Oundle School say at a meeting of rather cautious educationists that in his opinion every year the whole of the science apparatus



should be taken into the playground and publicly burnt. This was his incisive manner of acclaiming progress. On the other hand I have some sympathy with the Irishman who, told to arrange his building for future generations, replied petulantly that posterity had never done anything for him, and like most things in life laboratory construction must be a compromise. Such things as floor drainage, ventilation flues, and supply services must

tion, and may determine the layout of horizontal steelwork, hence these requirements must be visualised very early.

The provision of vertical shafts and false ceilings over corridors much assists the grouping of pipes, which may reach a very considerable aggregate sectional area. Though personally I consider that general ventilation systems should be discarded whenever possible in favour of opening windows,



WESTERN RESERVE UNIVERSITY SCHOOL OF MEDICINE: FOURTH FLOOR PLAN

This building forms a good example of the use of the unit system on a large scale

For this illustration and the illustration on page 75 the writer has to thank the Rockefeller Foundation.

obviously be of a permanent character, often to be sacrificed in any subsequent radical alterations.

Good natural lighting is most essential, and in climates which are not tropical hardly too much window area can be provided. The height of working rooms should be generous both to provide good light and ensure a fresh atmosphere. In noisy situations lecture rooms should be given the quietest aspects. Orientation is of great importance for certain subjects; many biological experiments, for example, require a steady light between east and north. The special services required in science buildings in the matter of floor drains, flues, and service pipes often vitally affect construc-

certain fittings always require special ventilation, and any trunking involved, which may reach some magnitude, should be visualised before contract drawings are completed. While too much stress is generally laid upon the subject of vibration, for certain kinds of work in situations surrounded by traffic special structural features may have to be incorporated.

To summarise, the designer must realise that it is not enough to produce a good plan giving the accommodation sought and to leave technical requirements to be dealt with later. The whole design must grow up together and the fixed fittings must be laid out on the plans suitably spaced.



at a stage to prevent the embarrassment of the general contractor by subsequent changes.

I propose now to deal with the requirements of physics, chemistry, and biology, the basic trio from which all advanced work is developed.

Physics, besides its lecture rooms and laboratories, requires good storage for valuable apparatus, much of which is often housed in the working rooms.

usually gas supply when compared with chemistry, but electric power often involves a large and complex system. Little artificial ventilation is wanted, but dark rooms should always have an air current. The requirements of most instruments affected by vibration can be met by the building into walls of small corbel stone shelves, preferably near cross wall intersections. Moving machinery, particularly of the reciprocating type, should be

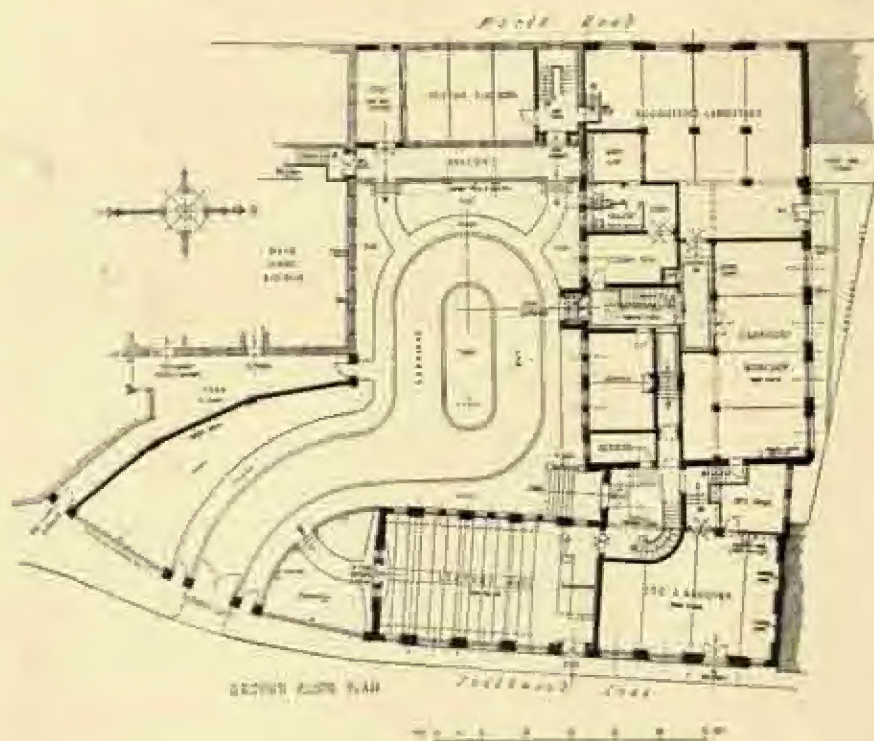


FIG. 3.—HIGHGATE SCHOOL: GROUND PLAN OF NEW SCIENCE BUILDING  
The upper floors are devoted to physics, chemistry and biology  
The scheme incorporates older buildings to form a court with a new road access

Less is wanted in the way of preparation rooms than in other subjects, but more in mechanical equipment; a workshop for repairs and making apparatus is required, which in a large scheme may contain a good many machines.

Electrical work often demands a special suite of rooms for high tension experiments, batteries, and distribution boards. Facilities for darkening rooms by blinds are particularly necessary for physics, hence roof lights, which present some difficulties in this respect, should be used sparingly. Water and drainage requirements are small, as is

divorced from a physics department as much as possible. Wood blocks or narrow tongued boards on solid floors give a good working surface, cork slabs form a very pleasant and durable surface for research rooms, asphalt is suitable for battery rooms, stores and the like, and even cement is quite suitable for stores, though tiring to the feet.

Chemistry demands more in the way of preparation rooms, washing up rooms, and dispensaries, and much space for light glass and chemicals, some of which require special accommodation as being dangerous. The supply services for this science





FIG. 4.—CLIFTON COLLEGE: ELEVATION TO CLOSE OF CHEMICAL DEPARTMENT OF NEW BUILDINGS, WITH CHAPEL ON THE LEFT

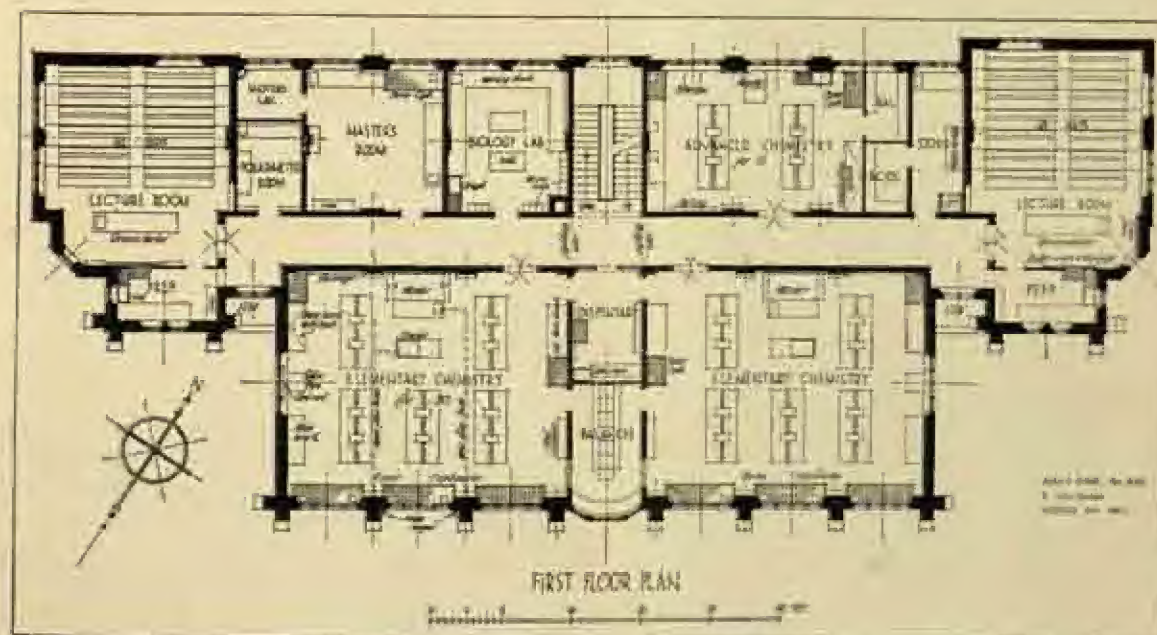


FIG. 5.—CLIFTON COLLEGE: FIRST FLOOR PLAN OF CHEMICAL DEPARTMENT



are great. Drainage is complex, calls on gas and water considerable, while steam, vacuum, and other special services are often called for. The arrangements for electric power are generally confined to a few rooms.

All chemical laboratories require several cupboards involving special flues operated by fans or gas jets. All working rooms get hard wear, and wood blocks or narrow boards make the best floor surface. Acids frequently spilt attack cement and all forms of marble, while caustic liquids readily damage linoleum.

Biology embraces botany and zoology, and both subjects draw upon chemistry and physics in advanced work. This science has recently much enlarged its boundaries owing to research. For elementary work equipment is simple, both in fittings and services; apart from museums, often elaborate and costly. Storage, however, should be ample, and space provided for the setting up of specimens, while plenty of shelving and cupboard space is necessary. Animal dissections are usually on a small scale, such work on the human body being generally relegated to hospital practice, but requirements which may greatly vary the character of a building should be ascertained. The necessity for a steady light has been referred to, the microscope being in constant use, and though the tendency is to employ artificial light even by day, the breaking up of windows into small panes should be avoided as being very annoying for such optical work.

Water and gas requirements are small, and such electric power as is necessary is of small amperage. For advanced work, however, special rooms highly insulated for constant temperature work, for incubators, centrifuge and other plant, are necessary, while a refrigerating circulation is required for the preservation or freezing of material to be dealt with. Though fume cupboards are little called for, hoods for smoking drums and like uses may involve special flues. Whereas physics and chemistry benches in general laboratories should have a cross light, such benches in a biological department should face the windows.

We can now turn to some specific fittings which require special design, and in this connection again it will be found useful to cultivate the unit idea in dealing with advanced work. If a standard bench be worked out to requirements for a specific subject, this will probably be found capable of considerable repetition, decreasing cost and admit-

ting of some useful interchanges as work in a building develops. This applies particularly to the underworks of benches in the matter of drawers and lockers, which may often advantageously be made separately from bench tops, this conferring considerable elasticity upon the fittings of a room.

Taking first lecture theatres generally. Lecture tables differ much in elaboration, for geology and botany sometimes a plain table is considered sufficient; usually, however, and invariably for physics and chemistry, drawers and lockers are provided on the lecturer's side. A long cupboard for a lantern is useful, very shallow drawers for microscope slides, and a few small locked drawers for valuables; but some open area is usual in the centre as knee space and to hold tall apparatus. The front of the table may be merely panelled or provide shelves or shallow cases for specimens. Usually 3 feet high and 3 feet wide, lecture tables may be any length from say 12 feet upwards—one could be cited 60 feet long.

Teak still forms the best material for the top, but sometimes a part is in tiles or stone for experiments involving much heat. Two sinks are generally the maximum, one at each end either in or outside the table. Services may range from nothing for geology and botany to every kind of supply.

All lecture rooms should have dark blinds of rubber-proofed cloth sliding in casings with checks to prevent overrunning. They require consideration in reference to window gear, and I have recently used some in two halves, one to pull up, the other down, with a good overlap and slight space between to admit air from open windows, which otherwise often results in blinds being blown out of their casings.

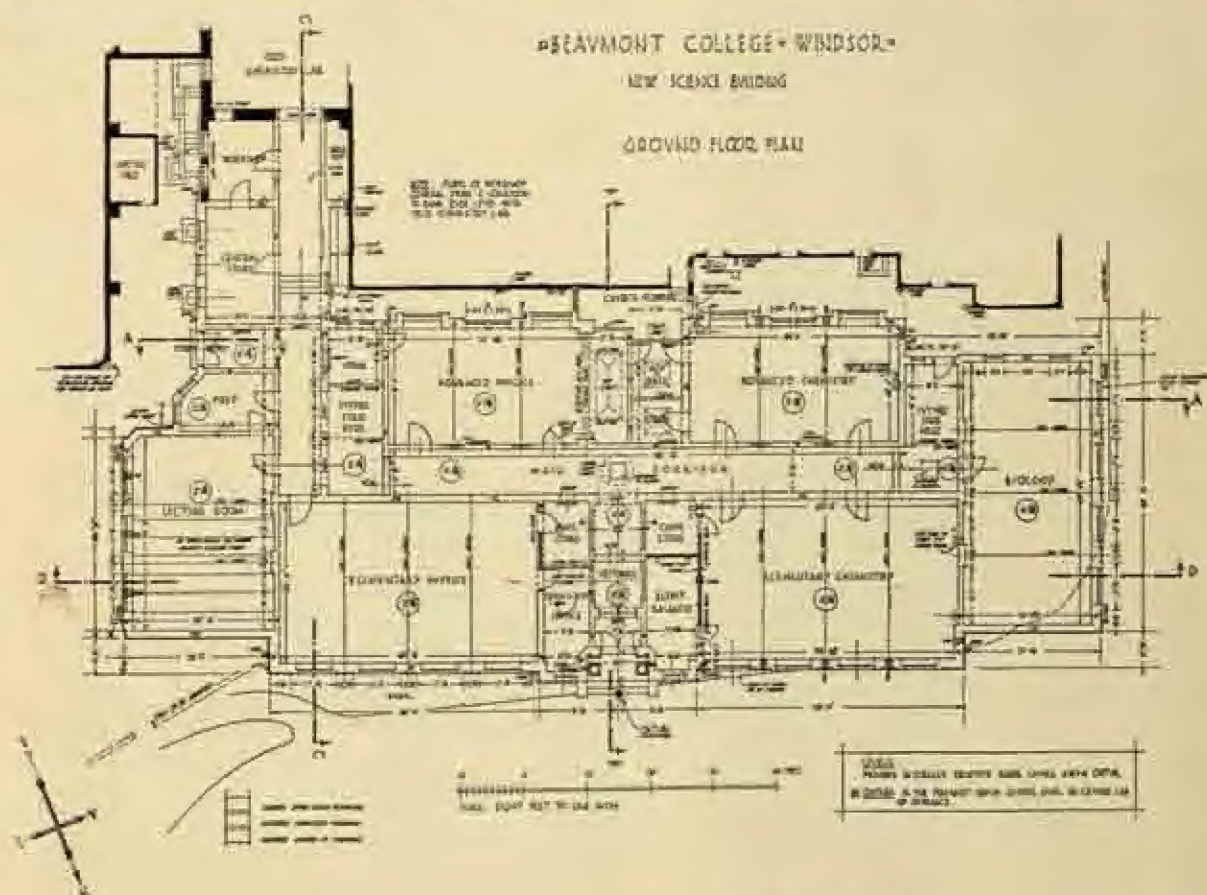
Seating takes various forms, but comfort should be studied. Seats should slope up to the front to throw part of the body weight on to the thighs, and should have a back rail below the shoulder blades and a strong foot rail to the desks. Raised staging in graduated heights should be provided unless the floor of the room has to be cleared for other purposes, but the steep pitch of the older lecture rooms is now seldom adopted. For continuous desks 2 feet per place as a minimum gives writing space. Many lecture rooms, particularly in schools are much larger than necessary, using space needed for laboratories.

Physical laboratories in small composite schemes



generally occupy a ground floor but sometimes economy in drainage and the possibility of longer flues may result in putting chemistry on the ground and physics over it, and with modern construction there is little objection to such an arrangement. For schools the Board of Education allows 30 square feet a head in laboratories, but it will be

One or two large sinks with draining boards are usually enough in a general laboratory. A demonstration table—a lecture table in miniature—on a low platform, is usual in schools. Balances are quite suitably housed in a physics laboratory on strong shelves, often in the windows, where they must be considered with respect to dark blinds



found rather difficult to produce satisfactory conditions with this minimum in all subjects. Small strongly framed tables 12 to 18 feet super, at right angles to the window wall, with 4 feet gangways, make the best arrangement, but take more space than continuous benches for a given number. These tables, usually 3 feet high, should have no drawers or lockers unless such space must be used for general storage. Not subject to much hard wear, teak tops are not a necessity.

required. Stone corbel shelves have been referred to; and are required for galvanometers, and a few large glazed cases may complete the equipment. Gas and electricity, usually wanted on island tables, should be brought up through floor trenches to fittings with detachable connections. The use of brass or copper for service pipes and radiators near positions required for magnetic experiments merits consideration.

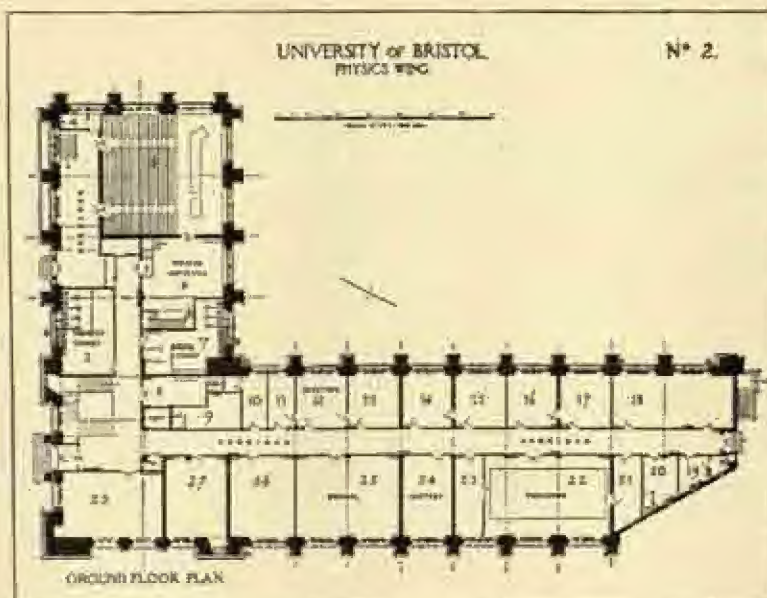
Chemical laboratories require benches with sinks



available for every worker without leaving his place, as water is in continual use. Each student usually has his own set of apparatus, which involves a drawer and locker under his working place. For elementary work 3 ft. 6 in. bench length is almost universal in different countries, and to meet the needs of alternative sets of students possibly three sets of lockers may be required under such a bench length in schools. Requirements, which may much affect administration, should be ascertained.

Racks for bottles, best of glass, suitably supported, should be as few as possible, though for advanced

6 inches deep, the base is best of hard semi-glazed tiles on concrete. The front sash should throw up 2 feet 6 inches. Usually a sink or drain channel is required in these cupboards. Ventilation may be effected by gas, in which case each cupboard has its separate flue, or by fans connected to a trunking system best made in asbestos cement, though steel, lead coated, finds some use and is light. Though a group of cupboards may be profitably operated by a single fan, I am not in favour of large central systems operating several rooms, which involve large trunks and great waste



UNIVERSITY OF BRISTOL: NEW PHYSICS BUILDINGS. Architects: Messrs. Oatley and Lawrence

Key.—Senior Theatre, 5; Private or small Research Rooms, 10, 11, 12, 13, 14, 15, 16, 17;

Other Research Rooms, 18, 26, 27, 28; Photographic Dark Room, 9; Workshop and

Power, 22, 23, 24, 25; Stores, 8, 21; Apparatus, 6; Cloaks, 3, 4, 7, 19, 20.

work two or three tiers may be demanded. Their reduction improves the appearance of the laboratory and aids supervision. Teak forms the best bench top. African mahogany has been used in several recent buildings, impregnated with aniline black, but this gives no reflection and is rather depressing in appearance.

Fume cupboards, which should be plentiful, require consideration. In a general laboratory they should be large and well lighted, and may be placed in the windows with tops finishing at transoms.

Glazed all sides, about 6 feet long and 2 feet

of power when limited use of the cupboards occurs.

Side benches for stock, stone or tile topped benches for combustions and ovens, and wall shelving is also required, besides possibly a demonstration table.

Biological laboratories require simple benches, usually continuous, facing windows for microscope work.

These may be in soft wood. Water is more necessary for zoology than botany, but individual sinks are not wanted. Lockers below the benches may be decided upon to hold microscopes, with plenty of knee space alongside them, but



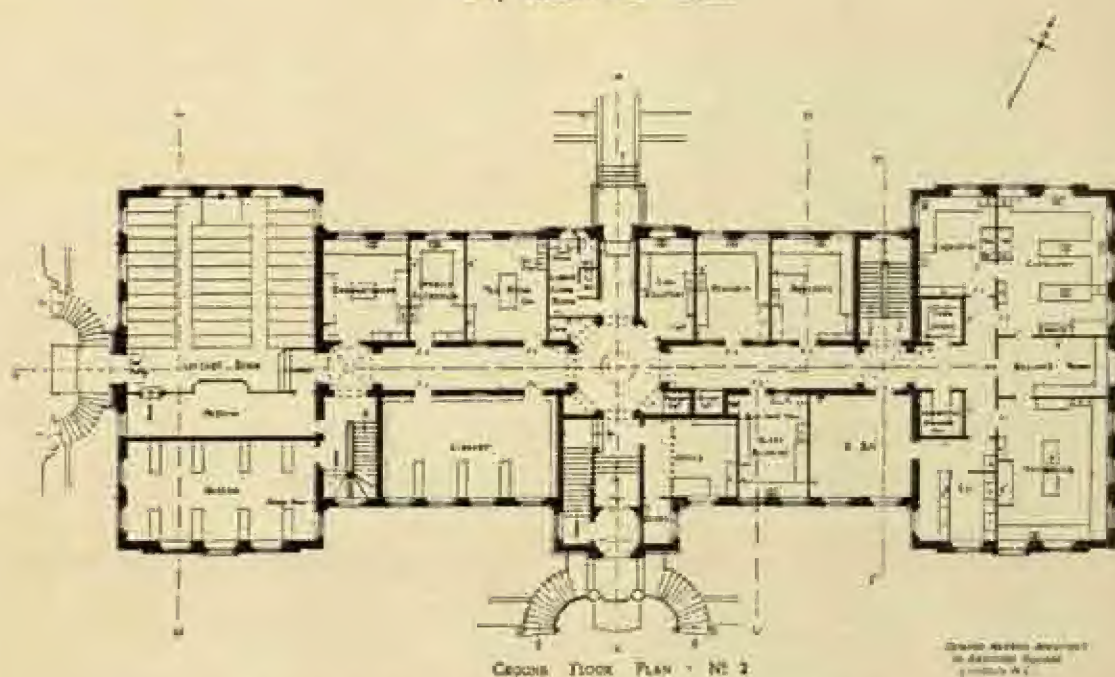
sometimes these instruments are banked together in a special wall fitting. The height of the working benches, generally 2 feet 6 inches to 2 feet 9 inches, is governed by the stools proposed and necessary for all students. Plenty of narrow wall shelving is required, and for herbarium purposes carefully made cases to hold pressed plants in filing jackets. For zoology, in the absence of a special animal house, small cages may find a place in or near the laboratory.

and even in schools form a great incentive to personal study among older boys.

Balance rooms may be small, but must be well lighted and have rigid tables or shelves, which need not be more than 18 inches wide. They should not be used as store rooms. Preparation rooms should communicate with lecture rooms and also be separately entered. In small schemes communication with stores and laboratories is useful.

SIR WILLIAM DUNN  
SCHOOL OF PATHOLOGY, OXFORD

Scale of 1/4" = 1' 0"



SCHOOL OF PATHOLOGY, OXFORD, Architect: Edward Warren

Museums mostly associated with biological sciences form a subject in themselves. Fittings vary greatly in size and character, and occasionally involve cases some 10 feet in each dimension. Dust is the great bugbear of museums. Owing to changes in air pressure, it is no use trying to make a case airtight; air should be allowed access through absorbent plugs, which can be changed as dust collects in them. Protection from strong light by window or table case blinds is usually necessary.

I now turn to consider a few subsidiary rooms required in science buildings.

Departmental libraries form a growing demand,

A good working bench, large wash-up deep sink, plenty of drawer and cupboard space and shelving is required, also a blow-pipe table.

Workshops are usually small, well lighted rooms, with one or more heavy benches for wood and light metal work; a bench for soldering and glue pot is also necessary; racks for tools, storage for small timber, and possibly space for a lathe and drill may be wanted.

Stores should usually include receiving and unpacking rooms, and a small store attached to each laboratory is often a great convenience. Physics requires good glazed cases, chemistry rougher



types of bins and strong shelving. Large stock for chemistry demands a special fireproof room for ether and like liquids, and an acid store and locked cupboard for the more violent poisons. Space should be generous.

Storage for biology is concerned with specimens—some preserved in formaline, the use of which liquid demands special ventilation—large plans and diagrams, and, in the absence of a special room, space for mounting, with water and gas supply. A room confined to duplicate specimens is a convenience. Sometimes subsidiary rooms take a corridor form running alongside the laboratories.

Allusion has already been made to supply services usually limited to cold and hot water, gas, steam, vacuum, compressed air, electric light and power, and freezing circulation. Some of these are sometimes required at more than one pressure. For advanced and research work it is a good plan to have these services in the rooms on walls over a narrow shelf containing means for drainage. This service shelf is placed at the exact height of the movable fittings in the room, so that when these are brought up to it the effect of a fully equipped working bench is obtained.

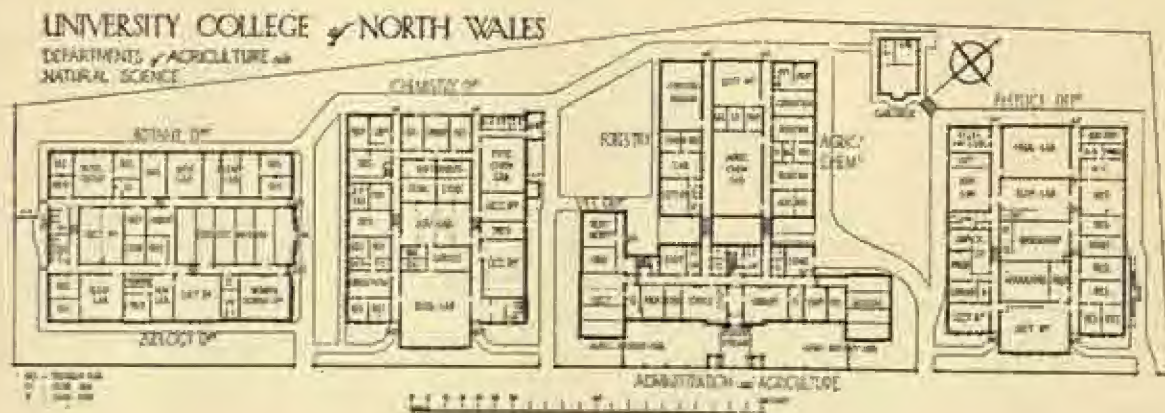
I must content myself with one special comment on these services in relation to filtration required in all chemical laboratories. This is generally effected by water pumps under a pressure of 40 to 50 lb., hence it is important to ascertain whether such pressure is available from the supply, failing

which some compression plant must be installed or filtration by a vacuum plant resorted to.

As a final point of detail, floor drains require careful construction; glazed ware is probably the best material for general use, though I have recently tried vulcanite on a small scale successfully, and have here some results on the use of nickel alloys for the inspection of anyone interested.

As pointed out, science buildings have many different aims, but may be broadly divided into those for teaching and research. In the former large general laboratories with detached benches predominate, lecture rooms are numerous, and apart from service requirements special rooms are few. Research, on the other hand, demands a large number of small laboratories or small suites, administrative rooms for heads of departments, and but few lecture rooms, chiefly for conference purposes.

In a research laboratory, work being individual, working benches are best fitted under windows, leaving as much space as possible in the centre of the room. It is obviously necessary, therefore, that the architect should first get a thorough understanding of the objects aimed at, after which he will alone be in a position to deal intelligently with the various schedules of requirements which may be placed before him, and give them that amplification in detail which will make him a genuine co-operator in this technical aspect of his many-sided profession.



UNIVERSITY COLLEGE OF NORTH WALES  
Shows complete lay-out of science departments on a 700 feet frontage erected a few years ago  
All are one storey except the agricultural building



## Discussion

THE PRESIDENT, SIR BANISTER FLETCHER, F.S.A., IN THE CHAIR.

Mr. H. T. TIZARD, C.B., F.R.S. (Rector of the Imperial College of Science and Technology), in proposing the vote of thanks to Mr. Munby for his paper said :

It is said that a very distinguished engineer, Professor Bertram Hopkinson, used to end up a course of lectures on the design of internal combustion engines in this way : " I have now told you all I can tell you about the design of engines. In practice, of course, you will find that you will have to go about it in a very different way. In practice there is one golden rule, and that is to design your pipe work first and then, if you have enough room, put in your engine." I rather think that much the same kind of thing applies to the design of a chemical or a physical laboratory meant for University and research purposes. It seems to me that, very often, the chief requirement is that the pipe work, the electricity supplies, and the plumbing generally, should be designed so that it shall not only be as ample as possible but also as easily get-at-able as possible. We have had experience of laboratories in which neither of those desiderata was fulfilled. There is one golden rule about laboratory design which we should like to see observed : let us have our supply services not only more than sufficient for our present position but so placed that they are easily accessible.

I know you cannot lay down general rules to cover all cases, but is it not possible, as a general rule, when you have a site to design on, to design the height of the floors and the size of the windows, then do the lighting and the pipe work first, then, so to speak, put in wall partitions afterwards, so that if at any time you want different sized rooms you can, at little cost, throw down partitions and build them up somewhere else. The best laboratories I have seen, those which appeal to me most from the point of view of physics and chemistry, as best suited to their purpose, are made on that kind of plan. Some of Mr. Munby's slides illustrated this already. Pointing to one or two designs, you will remember, he said " That appears to me to be an admirable design," and when he said that it always appeared to me to be the simplest design.

Descending to details—because it is details which interest both the architect and the scientific men in these cases—I hate to see benches fixed round the walls of a room, and I also hate the kind of cupboards which are put under them. Usually they are impossible to clean properly, and in a few years they get as dirty as cupboards can be. There are ledges at the bottom, and there are ridges of wood which prevent a broom being used in them, or any dirt remover, unless it were strong vacuum cleaner. (And, by the

way, I have never seen a vacuum cleaner inside a laboratory yet, though I suppose they are used.) I dislike a fixed bench, and I dislike particularly one which is so placed that you have to climb on to it whenever you want to open a window.

Another thing which is bad is to have a fume cupboard in front of a window. Why should not a fume cupboard be in the middle of the room ? Or it could surely be put away from the wall. It ought always to be large enough to be cleaned easily. Many fume cupboards are very difficult to clean.

For teaching purposes, especially in schools, it may be desirable to have fixed benches. For research work I think you always want moveable benches. You want, too, to allow the worker to make much more use of the walls. Look at the average laboratory and see what little use can be made of the walls. Walls are excellent for fixing apparatus on to, especially in a physical laboratory, which should, in my opinion, be fitted with strips of wood along the wall, to which apparatus can be screwed.

I could, of course, go on for a long time speaking of these details. But I may say that, broadly, I beg for simplicity, for cleanliness, and for flexibility.

I might add that libraries are seldom, if ever, big enough. The literature of science grows fast. The only picture of a library which was included among the slides Mr. Munby showed us had the shelves up against the wall. Think of the impossibility of providing a proper extension of a library under that system. The only thing to do is to bring the shelving out from the wall, so as to be able eventually to cover as large a proportion of the cubic space of the room with books as possible, and allow those who want to use the books to get at them readily.

And then in regard to lighting. One objection I have got to make in regard to the lighting of a laboratory is that there is never enough of it.

Sir RICHARD GREGORY (Editor of *Nature*) : I had thought that perhaps after the reading of Mr. Munby's paper there would be a discussion of some of the points raised in it, before I was called upon to second the vote of thanks to him, which I do most cordially.

I had the pleasure of knowing Mr. Munby before he became an architect, many years ago, when he was a science master at Felstead School. He was doing some very fine work at Felstead School, but left that occupation in order to secure the necessary professional qualification in architecture so that he might devote his life to the construction of science buildings. There is, as you know, no one who has devoted such particular



attention to that subject as Mr. Munby has done. Before he took up the subject of the design or the application of architecture to the needs of science buildings, Mr. Clay had devoted especial attention to school buildings, but no one, so far as I know, has dealt with science buildings as such. Many of us, therefore, welcomed very greatly the introduction of Mr. Munby into this new field, and watched with much interest the developments with which he has been concerned. I know many of the buildings which he has described in the course of his paper, and I propose to refer to only two types in particular. There is the science building at Clifton College, one of the finest science buildings in the public schools of England to-day, and it was designed by Mr. Munby. Also that very remarkable physics building which he gave us pictures of, the Henry Herbert Wills physics laboratory of the University of Bristol, which was designed by Messrs. Otley and Lawrence. You have in these examples the two highest types of science buildings to-day.

As has been pointed out by Mr. Tizard, there are two points of view. In the case of the Herbert Wills building there was an advantage that almost unlimited funds were at the disposal of the architect. Professor Tyndall told me he had a free hand to include whatever he thought desirable in the laboratory. That is a condition which few architects and few professors meet with in ordinary life. The result is that we have in that Herbert Wills physics building everything which the professor himself desired, and architects who were able to put the decorative adornment of it to any extent that they desired. Thus you have a building which, I suppose, ought to represent the best combination of science and art. The relation between the two has found beautiful expression by Sir William Watson in the verse:

"Science and Art, compete in glory,  
Boast each a haunt divine;  
My place is in God's laboratory,  
And in His garden mine."

You have those views expressed in that science building: internally everything the professor desired, externally everything that Messrs. Otley and Lawrence could wish with regard to artistic decoration. It would be difficult to conceive anything better: each research department is a unit of its own, with the supplies desired everywhere: electricity, gas, water, pressure or vacuum, available all over the building. It is in every way a credit to science and to architecture.

Mr. Tizard has already pointed out that all that the scientific worker desires is room to work, and a supply of whatever power he needs. All the rest may be put down as "trimmings" so far as the worker is concerned. I was in Copenhagen last year, and I was much impressed by the building which represents what may be called the Scotland Yard of that city. The architect

has erected a building which externally is of a dignified character, and yet he seemed to say, "If you want to see what I can do, come inside." It is a building with a straight skyline, and when you go under an archway you come into a fine court or colonnade. The beauty is seen from the inside and not from the street. Similarly, the scientific man says, "I don't care what you do in regard to these outside trimmings—what I want is that the benches shall be placed properly, and that power shall be where I want it." As Mr. Tizard has said, what is wanted is flexibility of movement, instead of having everything fixed and nothing movable in any way. The difficulty, as everybody knows, with regard to this movement is the power supply and the drainage, which must take certain definite lines, I suppose. Mr. Munby did not refer to some of the details, with which he is very familiar. One of the questions is that of drainage in physics and chemistry laboratories, seeing that when boys, carelessly or otherwise, throw mercury down the sinks it is not lost. I have come across some laboratories where, whatever happens on the benches, the mercury does not go down the drain, but is collected in a sink. In some laboratory benches there is a groove underneath, and that is found very useful for drippings. All those things Mr. Munby is no doubt familiar with, and has introduced these devices into his buildings.

Mr. Munby has presented to you three main subjects of science teaching which are taken at school and university—namely, chemistry, physics and biology. Engineering and mechanics laboratories may, perhaps, go into another category. There is, however, one type of science building to which architects here, when funds are available, may devote their attention, as in the United States, and that is the construction of astronomical observatories. In the United States there are a dozen of those to every one in this country, and there vast sums have been expended on the buildings and their equipment; the selection of the site, the design, the telescopes and other equipment. May we not look forward to a paper, at some future date, on the design and equipment of astronomical observatories?

Mr. W. R. DAVIES, C.B. [*Hon. A.*], Assistant Secretary Technological Branch, H.M. Board of Education: My own connection with the design of science buildings has run rather to engineering and mining than to the staples of school instruction—chemistry, physics and biology. However, I shall be happy to pass on anything Mr. Munby said about our regulations, and I am sure the source whence it comes will ensure for it good consideration by my professional colleagues.

Sir ROBERT ROBERTSON, K.B.E., D.Sc., F.R.S., Government Chemist: It would be invidious to criticise in any detail Mr. Munby's paper, because it contains so much that one agrees with entirely. Only on matters of detail could one expand. But if one did want to be captious, perhaps one might take some excep-



tion to the remarks of a pessimistic nature near the beginning of his paper, in which Mr. Munby says that the British public do not care for science, and that we shall soon be a second-rate nation because of its neglect. As to the first point, I think there are great signs of improvement. I am told by Sir Henry Lyons that this year the Science Museum will have had a million visitors. With regard to the second, those of us who are scientific men will uphold the contention that we have the finest scientific men in the world; and if other nations have been in front of us in application of scientific discoveries, we are rapidly overhauling them.

Mr. Munby asks scientific men to say whether they prefer the unit idea of laboratory construction or a more individual treatment. I think that is mostly a matter of money. In some, as in Mr. Tizard's university, where they have plenty, they have this new physiological laboratory with all its uniqueness. But in Edinburgh, where they are thrifty folk, in the new chemical laboratories they have a plain saw-toothed building which can be expanded to any extent.

With regard to chemical laboratories, we must make a clear distinction between the organic or analytical laboratory on the one hand, and on the other the physico-chemical laboratory. In devising the latter I have had some experience. There, of course, the principle of the mobility of benches is most important. The scheme I adopted at Woolwich was founded upon the design of Professor Donnan, of University College. Round the room there is a skirting board, in which are shallow sinks for water, and movable tables of standard size. Alternately with the movable tables are fixed tables fitted with Rulon bricks. I, also, dislike having cupboards underneath the tables; so the cupboards were placed on the blank walls of the laboratory. And in this laboratory we had the water supply at the periphery of the room, so that the floor was not broken up by any drains for water. All the water discharges running out of the building were collected outside. The pipes for gas, vacuum, compressed air and steam—at two pressures—were distinctively coloured, and were arranged round the walls of the room and in the corridors. That seemed to be an advantage, and I think it has worked well.

Although one can hardly go into details, I would like to refer to the best arrangement I have seen for fume cupboards. That is in the Baker Laboratory of Cornell University, U.S.A., where they have done away with the annoying sash, which comes down so often inconveniently. There is no sash in this fume chamber; just sides and a roof. There is a draught at the back, which is actuated by pressing a button. In front of the end of the flue taking the draught there is a single vertical plate of asbestos board fitting the whole of the back but leaving a space of one inch at top and bottom. There is thus a free space for all apparatus

and operations on the floor of the chamber, and the fumes either dip under the asbestos plate or go over the top. That is found to be a very satisfactory arrangement.

As the Bristol Physics laboratory has been mentioned, the question of window blinds there may be referred to. When a handle is turned, not only the vertical blinds over the windows, but the horizontal ones over the lantern begin to come down. If you turn the handle the other way, the reverse happens.

Professor A. V. HILL, F.R.S.: I must thank you, Sir, for having invited me to come and listen to this discussion and this lecture from Mr. Munby. It is a pleasure to hear from an architect who is so well acquainted with the design of science buildings. When I went to Manchester in 1926, I found a laboratory there in which the architect had certainly not been acquainted with the needs of science in the design of the building; some of the fume cupboards, for example, had no exits at all. A fume cupboard apparently was the sort of decoration which you put in because it looks so well. We repaired that matter. And we did another thing. There were three long corridors, each about six yards wide, down which you could drive two motor-cars side by side. Two of these we filled with research rooms; in the third we built a library.

The only statement of a general nature I would criticise in Mr. Munby's lecture is that one wants a large number of small rooms for research workers. I protest against that. There is fortunately little secretiveness among scientific workers in this country, though I admit that in other countries there is a good deal; people hide themselves behind their doors and will not let others see what they are doing, as they are afraid they will steal their ideas and patent them. This fear is not common in this country, and you can help us to avoid it altogether by providing larger rooms for research work, and so mix people up and allow them to see and be seen by others. Though the policy in such matters rests rather with the heads of departments, a hint from the architect may be useful. I want architects, therefore, as far as possible, to give research workers larger rooms, where two or three people can work together; they will then develop no desire to hide their work from their fellows. Another thing architects might well remember is that a research laboratory should contain a common meeting ground. If the designer of a library can introduce a little room where a kettle can be boiled and teacups can be washed up, it would be well, for then workers could have tea in the library together. People are apt not to use libraries as they should. If, however, you can induce them to have tea in the library, and to go there occasionally to discuss their work, there is a chance that they may learn to go there also to use the books.



The PRESIDENT: You will agree, ladies and gentlemen, that Mr. Munby has given us an extraordinarily fine paper. He started life, as you have already been told, as a teacher, and he has been able to put some of his knowledge into practice. I was sorry to hear, from Professor Hill, of the fume cupboard, but you can hardly expect the designer to know that a fume cupboard wants an exit. What is extraordinary to me is that with so many professors about they did not find this out until some time after the building had been erected.

We have a number of architects here who know a good deal about this subject, and as there is no further time for discussion, I shall ask them to add to it by a letter to the JOURNAL; if Mr. Waldram and others of my friends here would do that, it would be a great advantage, and would add much to the value of the discussion. When this paper is published with the contributions, it will reach an audience of 7,000 members.

I now put the vote of thanks to Mr. Munby, which was proposed by Mr. Tizard and seconded by Sir Richard Gregory, for the paper which he has brought before us this evening.

This was carried by acclamation.

Mr. MUNBY, in reply: I wish, with the President, that we could have had more time for the discussion, but what we have heard shows that there is here a great field for a fuller understanding between scientific men and architects, and I hope we shall have in the JOURNAL some more opinions on the subject, because we as a profession need more enlightenment as to the requirements of men of science upon laboratories and science buildings.

I am particularly pleased to hear that I am considered to be pessimistic about the future of science in this country. We have among our guests to-night a Member of Parliament who has started a Science Committee in the House of Commons, and if that Committee functions I think it will be one of the most important things for science which has happened in this country for many years. We want to get the nation interested through our Members of Parliament and Cabinet Ministers; only then we shall feel that science is taking its proper place in our national concerns.

The following contribution to the discussion has been received from Mr. BERESFORD INGRAM, Divisional Inspector, Technology, Education Officer's Department, The County Hall:—

Mr. Munby made a plea for co-operation with the teaching profession and, in effect, asked for some guiding principles. I should wish to emphasise three:—

1. Science laboratories for day school use only (*i.e.*, for pupils up to the age of about 18 years) should be designed so as to insure ready and effective supervision: all corridors and passages should have a generous width, but not so generous that they invite the accommodation of cupboards and apparatus.

2. In technical institutions, where the laboratories are in use during the day for full-time students and in the evening for part-time students, equipment and apparatus accommodation should be plentiful and near at hand. The time given by evening students is very valuable and found by them at great sacrifice: no time, therefore, should be wasted in getting out and replacing apparatus. The laboratory steward's room and store apparatus should be centrally placed and, in order to minimise steward labour cost, the laboratory fittings should be such as require minimum cleaning attention. It is suggested also that more thought be given to devices for preventing the waste of gas, light, and water.

3. In university laboratories, follow Dr. Tizard's advice and provide the necessary artificial lighting, generous and easily accessible light, heating, power and water services, and leave the rest to the users of the laboratories. The progress of science may be jeopardised by an endeavour to accommodate the experimental work to the unconscious limitations set up by the architect.

Two lesser (but important) points:—

(a) Lecture theatres should *always* have side gangways (*i.e.*, running along the side walls): this is well purchased at the price of reduced seating accommodation. It must be remembered that the lecture theatre has to be filled and emptied (as a rule) quickly.

(b) In school laboratories particularly, the benches should be provided with wire baskets sunk into the tops immediately over the open drains. Filter papers, matches, etc., can be thrown therein and plumbing accounts and dislocation of work thereby reduced to a minimum.

Mr. P. J. WALDRAM, F.S.I. [L.], writes:—Although no one would disagree for a moment with Mr. Munby's plea for the best possible equipment for science schools—one may be permitted to join issue with him on the suggestion that unless this country bestirs itself and puts its house in order, it is in danger of being outstripped in scientific achievement in 50 years by other nations more wisely progressive.

Is it necessary to take quite so pessimistic a view of the scientific capabilities and potentialities of this country? As architects we are, of course, merely plain, practical business men with no small reverence for proven achievement, but with little knowledge and



less reverence for the scientific means whereby an end is laboriously achieved.

May we not therefore say, without vain glory and merely as observers of current and past events, that hitherto the scientists of this country (by means which perhaps are more or less hidden from our ken) have always been in the forefront of scientific achievement, that they certainly occupy that position to-day, and that it is therefore our peculiar responsibility as architects to see that nothing is lacking in our work to ensure that their future scientific record shall be even more brilliant.

Scientific achievement is a growth which can be stunted by harsh conditions and unsuitable environment. One does not expect great results from communities below the poverty line. But it is not by any means a hot-house plant; on the contrary, it generally thrives better in the open.

By real scientific achievement, I refer to discoveries and developments made, not by chance, but as the result of painstaking research and hard study directed towards some real practical end, hitherto unattainable, of advantage to mankind at large. I do not refer to research prosecuted merely for its own sake, such as the mathematical prosecution of the 50th place in the decimal value of  $\pi$ , or the exact thickness of a coat of paint or any other addition to our knowledge, scientifically interesting, perhaps, but of no immediate practical use.

When it is a matter of achieving some difficult but greatly desired end for the good of the community, something which the scientists of every other country have found too difficult, what is more likely than that ultimate success will be achieved by someone who refuses to be discouraged by failure or depressed by the gloomiest prospects, by one of those unconquerable optimists who can declare hopefully that "If winter comes, spring is not far off"; in a word, by one of that fortunate race who every year has to live through a British November. I would venture to suggest that so long as the British climate continues as it is, and as it always has been, for so long will British scientists continue to lead the world.

There is also another reason, scarcely less potent, which, as Professor Hill said, we must remember in our planning. Research of any kind almost invariably demands co-operation. Very seldom is it a growth propagated in the single rooms which the author suggests for research. Single-handed research is almost invariably understaffed. Two men roped together can climb a mountain inaccessible to one. Three men will probably get higher still. We need scientists who can work together and trust each other without jealousy. Fortunately, team work—playing

the game and playing it for the side—is ingrained in the British temperament, no less than a dogged refusal to acknowledge defeat.

If many years' association with all sorts and conditions of British scientists has taught me nothing else, it has at least taught me that our scientists can and do trust each other unreservedly and help each other generously. Let us therefore take to heart the invaluable advice of Professor Hill and afford them in planning the fullest opportunities for intercourse: our Cloistered they must be, but we can at least given them the cloister rather than the cell.

May I add a brief word of warning against the almost inevitable effect of the author's collection of admirably planned and perhaps lavishly equipped laboratories on the minds of those of us who have to advise clients with limited resources.

The finest results are not always obtained from the best apparatus; and although as a great scientific nation we ought not to be satisfied with anything less than the best, let us not despise any opportunity for providing accommodation in schools for any experimental apparatus however crude, for our science must be practical and experimental if it is to be of any value.

Professor Hill will, I am sure, bear me out in saying that several of the more outstanding discoveries of modern times have been made under conditions which were unsuitable and unpromising to an almost incredible degree.

Just as the appropriate chemical solution may ask only for the simplest glass rod upon which to crystallise out into forms of wonderful beauty, so also will the appropriately charged mind seize upon even the most crude apparatus upon which to crystallise out ideas. Newton's falling apple was scarcely apparatus of precision; but how lucky would be the modern scientist who could achieve results in his £100,000 laboratory of anything approaching equal importance to those which the mind of Newton evolved from his falling apple.

At least let us miss no opportunity of providing, not only in some, but in all our architectural schools at least one or two rooms in which students can analyse mortars, test deflections with knitting needles, break wood joists with weighted bricks, make up and test roof trusses with plasterers' laths, string, and spring balances, and learn leverage with a 5-foot rod and the kitchen weights.

Give them more if you can, but at least give them that. Architecture is building, and building is a science, not to be learned from books. Let us see to it that the next generation of architects have at least their minimum chance.



# The Imperial College of Tropical Agriculture, Trinidad.

BY MAJOR HUBERT C. CORLETTE, O.B.E., F.S.A. [F.]



IMPERIAL COLLEGE OF TROPICAL AGRICULTURE, S. AUGUSTINE, TRINIDAD  
Hubert C. Corlette, Architect

**A**FTER Mr. Munby had read his paper on Science Buildings, the President invited those present who did not take part in the discussion of the subject to contribute further material for publication in the JOURNAL. It has been suggested to me that some notes on the Imperial College of Tropical Agriculture might be of value to those interested in the subject of the address. In 1919, Lord Milner, as Secretary of State for the Dominions and Colonies, appointed a Committee to consider the proposal to provide a College for the encouragement of teaching and research in tropical agriculture. As a result of its report the Imperial College was provided as the first institution of the kind in the Empire. It may seem strange that, as the possessors of the largest tropical estates in the world, we should only so recently have discovered the fact that their economic use and adequate development must depend on a scientific education applied to the primary industries that group themselves under the name of agriculture. Political theory and uneconomic speculation were forced back upon a few basic facts by the rude shock of war. And now a few people begin to realise that prosperity in the long run depends upon the volume of production. Industry must depend and operate on raw materials;

and it is evident that both the primary products and the secondary articles made from them must be grown, gathered, and transported, converted and distributed, by the aid of knowledge and experience, in other words, with scientific ability as well as political and occupational security. Otherwise, we are at sea in the winds of uncertainty. To meet and satisfy some aspects of these needs the College was built, and was available for occupation at the end of 1925. Its educational aim is wide, as it should be, seeing its function. It is necessary briefly to look at its curriculum and so discover something of this function. For an architect who approaches the solution of such a problem as the design—that is the planning and construction—of a science building must begin by seeing through and through for himself his own scientific analysis of a very intricate scientific problem. Some men of science are most unscientific in their apparent inability to appreciate what an architect has to do before a building can be devised, much less erected, and used for the occupation of scientific instruments, fittings, and the human investigators who are to use and abuse all this paraphernalia. A building is in itself a most complex scientific problem to-day, even without the added complexities of wires,



pipes, gas jets and drains, without which no science building is complete.

Generally, the curriculum of the new College was to deal as adequately as possible with the teaching of subjects that might be grouped under the heads of Agriculture, Genetics, Plant Physiology, Mycology, Entomology, Chemistry, Chemical Technology, and Economics. A three years course leads to a Diploma in Tropical Agriculture. And provision is made for post-graduate training and research. Agronomy, Sugar Technology and Physics are included in the course. And it was necessary also to find room in the

development. This could be carried out, if it becomes necessary, and as was originally intended, by additions to the south of the present block. The principal front of the building faces the east, the long axis of the plan being from north to south. This arrangement on the site was adopted so that the prevailing easterly winds might move through all the classrooms and laboratories to keep them as cool as possible under tropical conditions. The central block of the building is provided with open galleries on the east and the west sides. In the north and south wings the galleries, at first proposed, were omitted on grounds of economy.



IMPERIAL COLLEGE OF TROPICAL AGRICULTURE, TRINIDAD: VIEW OF MODEL FROM S. West  
Hubert C. Corlette, Architect

scheme of the plan for a library, the professional and administrative staffs, with Common Rooms for both men and women students. This scheme was much too large in scope for the scale of accommodation and expenditure at first proposed. It became, therefore, necessary to fit the teaching scheme to the cost or else to reverse the point of view. Some revisions were agreed so that the funds available could be made to provide for immediate essential needs. The chemistry department was housed in a separate building. And a model sugar factory was erected on a site within easy reach of the College.

The new College building, as now completed, has been erected in reinforced concrete. The external design and the arrangement of the plan have been worked out on general lines that will allow for future

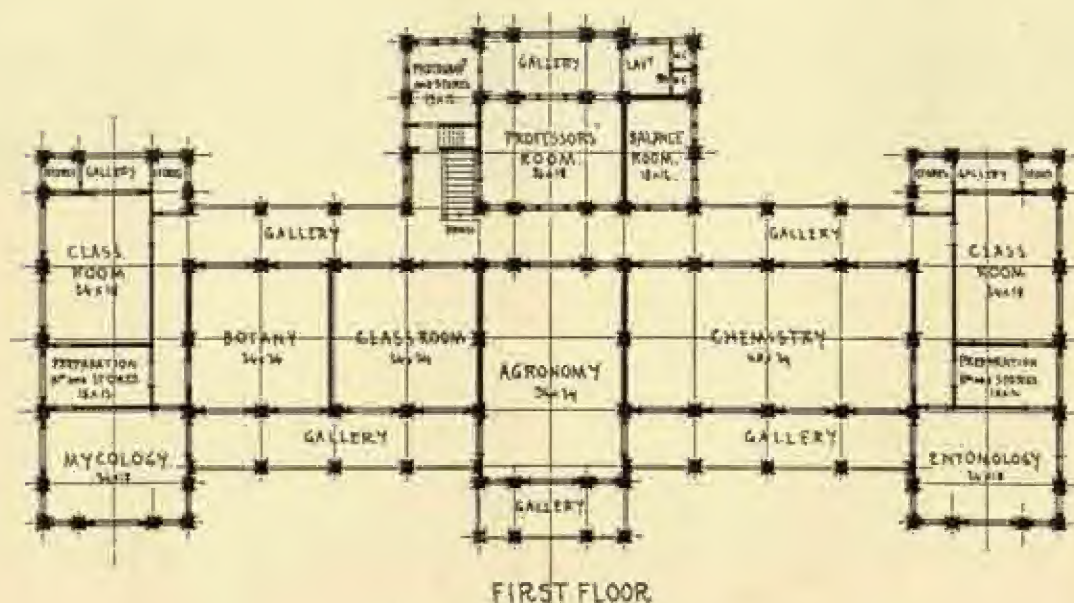
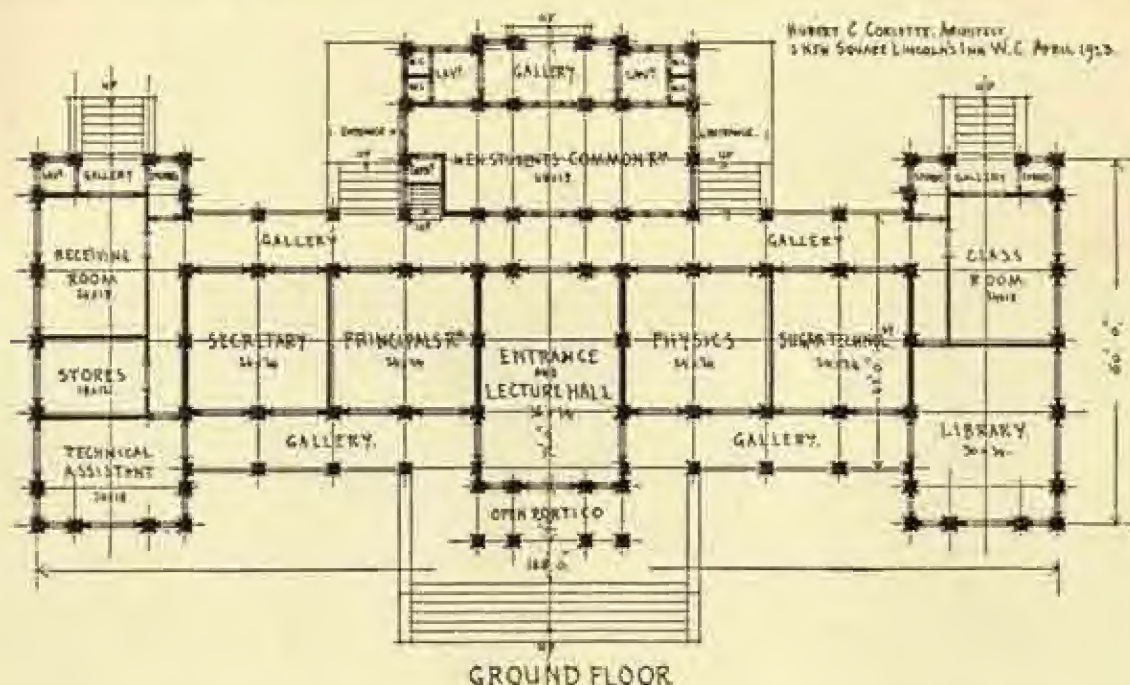
But the windows in the outside walls of these wings are provided with external hoods, and internal Venetian blinds, to give sufficient protection from the heat of the sun and the strong light of the open sky. All the windows of the various classrooms have been made as large as possible. This was clearly necessary for practical reasons. They were required to give ample light but in such a way that it could be under control if necessary at different times of the day. And they were also to be regarded as an essential method of ventilation. All of them can be easily opened or closed.

At the sides, and also over the top of some of the larger ones, movable louvres are provided as an additional means of ventilation. But from the architectural and building point of view these big windows



became a very welcome necessity. They add variety and colour to the whole structure and they help

out the external design of the elevations, it was felt from the beginning that a frank, practical recognition



IMPERIAL COLLEGE, TRINIDAD

to indicate the character and purpose of the building. In planning the internal arrangements, and in working

of the uses for which the building would be required was essential. For no addition of "features," as they



are sometimes called, or ornaments, can produce a satisfactory building if its primary use and purpose is not sufficiently recognised in all architectural and structural members. This building, therefore, relies as far as possible on its actual shape and size, its form and construction, in the first instance, to produce such qualities of architecture as it may possess.

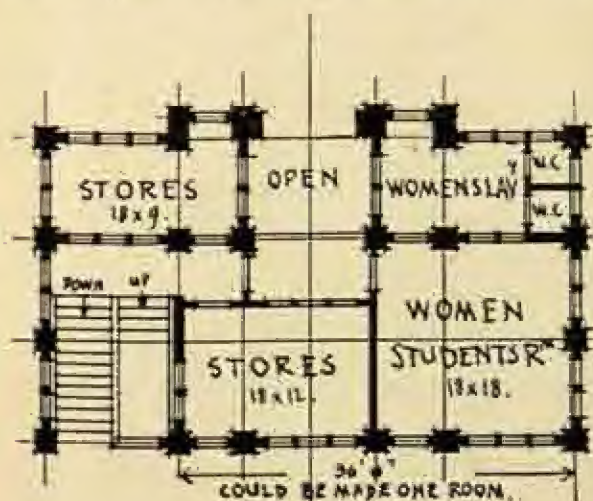
The plan of the building generally, and also that of the several classrooms, is symmetrical and flexible in character. The beams, and the posts supporting these, are spaced on what might be called a regular, or unit, method, and the division walls between all classrooms are partitions which can be easily removed to a different position if required owing to changing conditions of work in the College. By taking 12 feet as the unit of spacing from centre to centre of the main piers, rooms can be provided of any size that is a multiple of twelve by shifting the position of these light and removable partitions.

All the rooms are approached from the external galleries and not from internal corridors. By this means any obstruction to the cross-ventilation of the building is avoided. Some small changes in the allocation of the various rooms have been made, as the scheme of the curriculum for work has developed. But this does not alter the general plan. The principal entrance is in the centre of the east front. And from the entrance hall the west gallery becomes the main communication between the rooms to the north and south. A large men students' Common Room, nearly 50 feet long, is provided on the west. It has good lavatory accommodation and is screened from the sun by a small west gallery and portico of its own. Above the projecting block on the west, in which this students' room is placed, there is a mezzanine floor. This

contains space originally allocated as a separate women students' Common Room and other rooms. The classrooms on the first floor follow the arrangement of those below. The library is now in the centre above the entrance hall. The flat roof of the building is covered with a hard rock asphalt in which Trinidad bitumen has been used as being more satisfactory than Mexican or other products. The same material forms the paving of the galleries. In either position the asphalt is laid direct on to the concrete roof or floor. The material adopted has special qualities which some of the "reconstructed" varieties do not possess. The whole of the roof surface has been whitewashed to increase the heat reflecting power of the asphalt. All the classrooms are a clear 14 feet in height to the under side of the floor or roof beams. And in all of them it will be possible to secure freedom for the movement of air across the rooms at the ceiling levels. This keeps the ceiling surfaces at as low a temperature as possible and also carries the warmer air away as it rises from the lower levels. By this means, experience has shown that two things most desirable under tropical conditions may be gained—namely, a current of freely moving air, and a constant flow of naturally impelled change in the air supplies. Inlets at the low levels and the natural properties of air combined aid in providing a motion to induce both the current and the change.

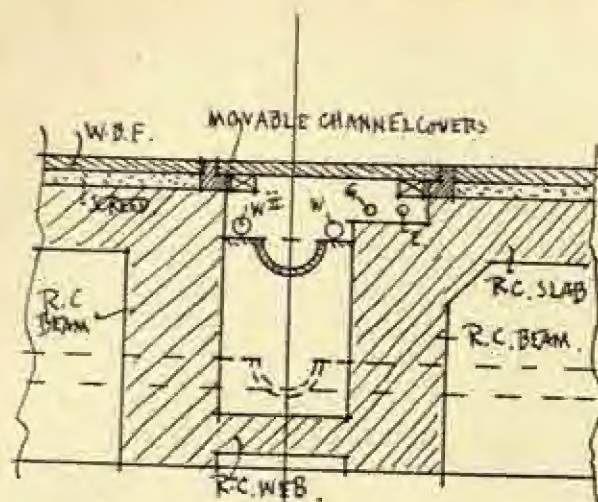
The floor surfaces of the class rooms are covered with interlocking wood blocks. Such a surface will have a long life. And there should be less noise from movement on the floors than if other materials had been used. Some sound is inevitable where concrete floors of a single slab thickness are a necessity. If acids are spilt on the floor the wood will absorb these readily and so reduce the risk of any residues filtering through to the concrete and steel below the blocks. The structural steel bars of the floors and beams could, if sufficient precautions are not observed, be attacked and destroyed by these acids. Recent research has shown that some patent flooring materials must be used with care for this reason. The possibility of what are described as "hair cracks" developing in reinforced concrete floors has not yet been eliminated. These cracks, however slight, are transmitted to the finished surfaces of the flooring material. And if certain acids have been used to harden the material artificially, they may be carried through those cracks to the steel below in the structural parts of the slab, by periodical washings on the floor.

Laboratory drainage is provided in each of the class rooms. All the main channels are carried in a series of double drainage beams with an even "fall" to the different outlets provided for each series of rooms. At various points these channels run through the main structural beams that carry the floors. But where



IMPERIAL COLLEGE, TRINIDAD





DOUBLE R.C. BEAMS - DRAIN CHANNELS  
CARRIED THROUGH AT NEUTRAL AXIS  
IMPERIAL COLLEGE TRINIDAD  
H.C. CORLETTE.

they cross those beams they do so at the level of the neutral axis.

Consequently they will not reduce the carrying capacity of the beams by any interference with the steel bars of the concrete taking the strains of compression and tension, or the shear stresses. The drainage beams are double for a specific reason. By this method of designing their construction it is possible to carry the channels in such a position that if any acid should chance to escape through the bed of the drain channel it will not come into contact with any of the structural steel in either of the beams. Risk of deflection or collapse from such a cause is therefore avoided. There will be no danger point where the channels meet and change their direction in the neutral axis as there are no joints in the channels where they cross the beams.

All the laboratory drains will be easily accessible for inspection or scouring, whether in or above the floors. Those in the floors have been provided with teak covers in short lengths, which can be lifted by flush rings at any point. And the removal of any one section of the cover will allow the waste pipe from the sinks in the benches to be inserted so as to deliver its waste into the drain below in the proper direction for its "flow" and "fall" to the outlets. The gas, water, and electric light supplies are also carried in these double beams.

The provision of drain channels in all the class rooms was decided upon for practical reasons. It may

be that in some rooms drainage will not be necessary at first. But if conditions change and the use of any room is altered, the drains will be ready and available without expensive alteration. The principle in view was to continue the idea of flexibility and unit structure into this detail of laboratory arrangement. It allows both for development and change in technical processes to be adopted in any room, or series of rooms, and it also permits the placing of benches for various experimental purposes in alternative positions either against the walls or on the central area of the floor. From what has already been described it will be seen that it was essential to study accurately, at the early stages of planning this educational workshop, all questions concerning the type, use, shape, and size of the fittings and furniture that might be required. Those now in use in various different scientific institutions were carefully studied in detail, the object being to discover, and take advantage of, past experience and recent experiment in such matters. Certain principles generally applicable were observed. In some instances costly, and complex, unnecessary, detail was recognised as something undesirable, and avoidable. Valuable experiments in extremely simple and direct practical, and adaptable, unit systems were examined with satisfactory results. And, so far as possible, a suitable and flexible unit type of laboratory fittings and furniture was devised in detail to meet the special requirements of the new College. Experience seems to show that men engaged in teaching science or research do not sufficiently realise the importance of deciding all details of fittings and furniture at a very early stage so far as possible. They are really the key of the situation where science buildings are concerned, as any architect knows easily. They determine the sizes of rooms, positions of windows, situations of laboratory drains, as well as the general disposition of the several main departments and their subordinate subdivisions. A neglect of such early decisions may involve increased cost in revisions of a plan, alterations in work already executed, and delay in the completion of the whole building, causing a total if temporary arrest of educational procedure.

The ground floor of the whole building is lifted up about 4 feet above the surrounding site levels. This allows for the passage of air under the floors and keeps the lower rooms sufficiently above the ground to avoid some of the effects of tropical heat and moisture at these lower levels. The area under the building is paved with concrete to prevent the growth of vegetation. And a convenient access is thus provided to all the laboratory drainage and services at ground level for inspection or repair. The sanitary and rain water drainage is collected and carried away in separate systems. A series of experimental tests of the temperatures in the various rooms was made above the floor



levels and below the ceilings of the ground floor and also of the first floor after the completion of the building. It was found that there was little or no difference to be observed. The temperatures recorded showed an equable condition and at a lower level than in the open air. It was noted particularly that the temperature immediately below the exposed asphalt-covered flat roof was really no more than under the ceiling of the rooms on the ground floor.

One or two further points should perhaps be mentioned. Large windows are desirable, even in the tropics, for airing purposes. An excess of light can always be controlled. Separate panes of glass are preferable to very large single sheets for economy in breakages provided the panes are sufficiently large and do not require too much use of bars that will obstruct light or interfere with its direct transmission when microscopic work is being done. A reflected light from a white internal wall is often as valuable as direct light for use with a microscope. Parts of a window opening can be used for the introduction of louvre blades instead of glass. But where these blades are movable, and worked so as to open and shut by the use of operating gear, precautions are necessary. For in driving wind and rain it is practically impossible to stop the passage of driven water through some part of the louvre mechanism. Another point is that where work is to be done near the window openings, some provision is needed at or near the bench levels to prevent the disturbance of delicate investigations by the passage of too much air through the windows at a rapid rate. If this is not done dust and rain may be driven into the laboratory with the wind, otherwise welcome as air, so that experimental work may be interfered with and perhaps destroyed.

It may be of some interest to add that the whole building, for which the contract was signed in 1923, when prices were high, was erected at a cost of one shilling and tenpence a foot cube, and there were no extras on completion. The work was carried out by English contractors and British materials were used throughout at a distance of some four thousand miles overseas from London.

The external character of the building has been

developed normally from the method of construction employed, the materials used, and the functions the plan was required to meet if the College was to be able to carry on its work as a practical teaching institution. These seem to be the ruling factors in any approach to the solution of a building problem. They were so in the past, when a satisfactory result was achieved. And it is probably a fact that success in our present and future efforts may come from experience in trying, so far as we may, to follow this kind of precedent. By some such method we shall perhaps be able to avoid starting with preconceived notions of an antiquarian style derived from archaeology. We may at least expect to find by experiment in that direction the way in which new materials and new methods of construction may be applied in the hope of arriving some day at results that will be satisfactory in an architectural sense. It enables us to avoid pretence and to get rid of the idea that persists in the minds of some folk still that architects are people who "draw plans" and add "art" to essential structure. Whereas to themselves they are persons who try to build some buildings the architectural character of which is inherent in their plan, their structure, their practical uses, and the materials out of which they are made.

The architecture of this building, in so far as it seeks to express any particular architectural character, is simply derived from a system of posts and beams in concrete reinforced with rods of steel. The necessary windows and the external galleries with their shadows supply in themselves some change in detail and differences of scale, in their colour or materials, and in their surface textures. Some red tiles have been introduced to provide a simple relief from too much monotony and to take the place of moulded forms where these might otherwise be used in capitals, bases, cornices or string courses. The effect of the building as a whole may perhaps be best described as a grey tone bleached by the sun with some added colour derived from exposure to the weather. The steelwork of the windows and doors is painted a tropical green and the woodwork of the louvres has been allowed to remain its natural colour—a light brown.



## Reviews

LECTURES ON ARCHITECTURE. By Sir John Soane. Edited by A. T. Bolton. 40. Lond. 1929. [Soane Museum: Publication No. 14.] 10s. 6d.

In looking through this new edition of Sir John Soane's lectures recently produced by the indefatigable curator of the Soane Museum, one cannot help thinking that the development of architecture during the last century has made very little progress on the particular lines laid down by Soane and his contemporaries. When we examine his masterly plan and the dignified scholarly elevation for a Senate House (Plates 49 and 50), and afterwards call to mind the work of the masters of architectural pastiche of to-day, there is little development to show in that special direction for the time that has gone by since the death of Sir John Soane in 1837, in marked contrast with the movement—it may be progress or it may not, we are too near the facts to be sure of their significance—in other branches of thought and human activity which has been an outstanding characteristic of the last hundred years.

In reading his lectures, especially Lecture XII upon Construction, one feels that Soane himself seems to have had some presentiment that he was living at the end of an aristocratic age which had produced the school of architecture of which he himself was to be one of the last masters, and at the commencement of an age when economic pressure would have a marked effect upon construction and design.

It would be presumptuous to belittle these lectures; they constitute a scholarly and critical statement of the traditional and aristocratic attitude towards architecture in the early days of the nineteenth century, which the student of to-day should not neglect; and, as pointed out by Mr. Bolton in his preface, they are all the more remarkable because the preparation of the first six lectures must have occupied the whole of the leisure time of a man who was incessantly engaged in a large and exacting architectural practice. But they should be read by the student with his eyes open to the fact that emphasis in these twelve lectures is laid slightly in the wrong direction: in reading them one cannot forget the heavy hand of Vitruvius; imitation has always led towards sterility, but it is the spirit and not the form that is meet for worship; indeed, the contribution to civilisation made by the Greeks and Romans and by the masters of the Renaissance is something that cannot be measured, but even they have not said the last word in architecture.

The student, or the master of architecture, for the matter of that, will do well to take these lectures just as the student or master of music reverts to his scales and exercises, that is for study and refreshment, with the realisation that for the trained and flexible mind rules are playthings for exercise and delight, rather than necessities to cramp the imagination.

W. E. VERNON CROMPTON [P].

DESCRIPTION DE LA BELLE ET GRAND COLONNE HISTORIQUE DRESSEE A L'HONNEUR DE L'EMPEREUR THEODOSE. Dessinée par Gentile Bellin. Fo. Paris. MDCCII.

This folio volume is of great interest not from the

beauty of the engraving nor from the rarity of the book, but for a very quaint reason.

The fifteen engraved plates represent one long horizontal band of sculpture many yards in length. On one of the plates is shown a large circular column behind and overtopping a steep bank. On the abacus, some soldiers are in the act of dropping a man. This has to do with the historian; to us the interest is that the shaft of the column is sculptured as a spiral winding round as the steps would do inside. The spiral shows five times and the sculpture is drawn rising with the curve as it should, but if we examine the plates we find these tableaux are given as perfectly horizontal, which must have been a very difficult piece of work and, of course, quite untrustworthy and useless as an archaeological record.

The sculpture represents the Triumph of Theodosius the Great, as carved on the column of that name, but very strangely Dr. A. van Millingen and Sir Edwin Peers agreed that this carving was that on the so-called column of Arcadius, the Emperor who succeeded Theodosius.

At the end of last century the pedestal of the column of Arcadius was standing a perfect wreck, but a fragment of the staircase within and the commencement of a winding band of sculpture was discernable, and if I remember rightly, they saw near by fragments with sufficient indication of sculpture to identify this carving.

A. E. HENDERSON [F].

## Correspondence

### SESSIONAL PAPERS AND THE CLOSURE.

9, Old Square,  
Lincoln's Inn, W.C.

To the Editor, JOURNAL R.I.B.A.—

DEAR SIR,—May I ask for space to ventilate a matter of general interest on the procedure newly adopted as to time devoted to our ordinary meetings. Admittedly these meetings have been too long and resulted in depleted audiences, and modern distractions make good attendances a difficulty, but I feel that the closure at 9.30 deserves more consideration.

I had the privilege on the 18th of introducing a subject, I think now agreed as important, over which, with a number of slides, I occupied 55 minutes. Possibly I was selfish, but for reviewing a topic which has not been before the Institute for a quarter of a century, the time does not seem excessive. For the rest of the meeting, including formalities, 25 minutes remained only. I quote a professor whom I happened to meet a day or two later. He said, "I could see that everyone round me was anxious to get up and debate your points, and it seemed to me that you had a unique combination of architects and scientists who might have exchanged views with great mutual advantage had more time been given." I invited him to write his opinions for the JOURNAL, but he replied: "No; I thought of it, but it is not the same thing; one has not the benefit of having heard others, and the fire has gone out with the occasion."

Evidently we cannot have both a paper and discussion in 80 minutes. The previous circulation of the paper and its being taken as read has been suggested, which would mean its prior appearance in the JOURNAL. This would divorce the paper from the slides which so often are



required to explain it, and it is doubtful whether many who would trouble to read it, would bring its purport to the meeting ripe for discussion.

Of course, papers differ, but when eminent outside visitors attend, it seems at least a pity that the help they can give by an expression of their criticisms should not be utilised.

Would it be possible in such cases to have a break at which some might withdraw, the chairman be released, and the enthusiasts might remain rather longer to exchange opinions. A successful meeting means a good deal of Institute staff work, and it does seem unfortunate if full advantage of the occasion cannot be taken.—I am, sir, yours,  
ALAN E. MUNBY [F.].

#### JAUFFRED AND GARIEL AND ANOR. v. JOSEPH SUNLIGHT.

8 and 9, Great James Street, W.C.1.  
25 November 1929.

To the Editor, JOURNAL R.I.B.A.—

DEAR SIR,—With reference to the report contained in your issue of 23 November as to the case of Jauffred and Gariel and Anor. v. Joseph Sunlight, may I venture to raise a protest against the phrase used by Mr. P. J. Waldram, in his introductory remarks, in referring to the fact that a suggestion had been made "that the basis of the usual standards of adequate light were scientifically inaccurate." Mr. Waldram goes on to use the words "these legalised standards have proved invaluable to architects." Whilst I do not for one moment disagree that these scientific methods, of which Mr. Waldram a few lines later describes himself as the author, have proved to the greatest value both to the Courts and to the Profession, I must object to any suggestion that they have been legalised, or that they have any force of law. So far as the legal position is concerned, it remains necessary for a complainant to prove that he has suffered legal damage, and Mr. Waldram's standards have no more legal force than the old 45 degrees rule. As it is possible that some members might be misled by the use of such a phrase by a gentleman of Mr. Waldram's known authority on these matters, I suggest that you should either publish a disclaimer or, if you see fit, publish this letter.—Yours faithfully,  
WILFRID TRAVERS [F.].

#### LORD CHARLEMONT.

15, Baker Street, W.1.  
25 November 1929.

To the Editor, JOURNAL R.I.B.A.—

DEAR SIR,—Mr. Grahame B. Tubbs, writing of the incident with Piranesi, refers to Lord Charlemont as an Irish statesman. One member of the family settled in Ireland about the end of the sixteenth century, and even now his descendants, who are still in the country, are called settlers by the Irish. Francis Hardy, the author of the *Memoirs of James Caulfield, Earl of Charlemont*, writing of the visit to Rome, says Lord Charlemont "patronised Parker, and two or three painters, whose names I do not distinctly remember. Piranesi he endeavoured to encourage, but that eminent artist was self-willed, and often violent in his temper. He took something amiss of Lord Charlemont (what, I know not, nor is it now of any consequence), but, after he had dedicated three or four of his

prints to his lordship, he struck the name out, and inserted that of the two Adams's. Not content with that, he published an abusive letter to Lord Charlemont; some copies were sold, and dispersed, before anyone had heard of the quarrel, but several persons in authority at Rome were extremely angry with Piranesi when they read his pamphlet, and he would have been treated with some severity had not Lord Charlemont's usual good nature interfered. Piranesi made an apology, the pamphlet was suppressed at Rome, and the belligerent parties were again on amicable terms."—Yours very truly,

S. B. CAULFIELD [F.].

#### THE LATE BERTRAM GROSVENOR GOODHUE.

24 November 1929

To the Editor, JOURNAL R.I.B.A.—

DEAR SIR,—I have been asked to write a few words about Bertram Goodhue to be published in the JOURNAL. As a draughtsman Goodhue needs no spokesman, for the recent exhibition of his drawings in the R.I.B.A. galleries gave ample evidence of his great skill. He had a facility with his pen and pencil which few architects to-day possess, and this facility led him into many fields apart from architecture. All of these drawings shown, however, were early works done before he began to interpret the Gothic architecture, which he loved, with the freedom which his spirit craved. In his association with Dr. Crain he followed fairly closely the traditional forms, and it was only after he opened his own office that he began to open into full flower.

I remember once meeting him at the Century Club when he had returned from a visit to Yale University, where much against my inclinations I had been compelled to build in the Gothic manner a large chemistry laboratory. "What I like about your new building at Yale is that it isn't too Gothic," he said. At the time I did not know whether this was meant for a compliment or the reverse, but as I watched his later work I came to the conclusion that it was sincerely meant. His was the spirit of the explorer always seeking new expressions and irked by the limitation of even as free a style as Gothic. I wish that the exhibition in London had contained some of his later work, the Nebraska State Capital for instance, for it would have shown better the real genius of the man. But this was an exhibition of his draughtsmanship, and in the years before his death he was far too busy to give much time to drawing; his mind was occupied in giving expression in brick and stone to many of his dreams, not in putting them on paper.

His mind was never at rest. Wherever and whenever you met him his brain was seething with some new or amusing idea which bubbled over in delightful expressions. He was an exhilarating companion. His death came much too soon, for he was just beginning to express in new forms what America is trying to say architecturally.

As always, when you lose a friend such as he was you regret the opportunities you had and did not grasp of seeing him.—Yours faithfully,

WM. ADAMS DELAND,  
President, New York Chapter,  
American Institute of Architects.



## Drawings and Sketches by the Late Bertram Grosvenor Goodhue

BY MAJOR HUBERT C. CORLETTE, O.B.E., F.S.A., [F.S.A.]

**I**T is really something of a relief to have seen the fine collection of drawings by the late Bertram Grosvenor Goodhue recently exhibited in the galleries of the Royal Institute. They show that the man who made them possessed a quite intimate perception of those finer qualities of large structural form, elementary masses, and the technique of skilled craftsmanship that must be assembled together in any building if it is to exhibit any true, lasting, architectural character. They are in a very

some remind us of what are known as Old Colonial in manner. There is quite a wide range of medium used in the several exhibits. Some are presented in a large, free use of a broad-pointed crayon. Others are examples of the most delicate and subtle handling of a pencil or a pen. And others, again, are freely, quickly touched into the form of his ideas, with either a pencil or a crayon, and finished in water-colours. He has used these last with a fine understanding of their qualities and their limitations;



WATER COLOUR SKETCH OF A CHURCH

By the late Bertram Grosvenor Goodhue.

real sense drawings of buildings, not drawings that are a pretence of, or substitute for, building. We constantly hear the criticism of method to-day that men on all hands are being taught to "render" more than to build; to draw rather than to construct; to think in lines and paint and not enough in the terms of those material things these should represent. Goodhue was, as we all know, a great builder, as every architect should be, and must be, all the time. It is easy to see that the object of all his drawing was that he might be able to build new buildings with character, and to study the character qualities of all old work with which he came in contact. Many of these drawings are studies of or for work of a Gothic or Tudor type. A few are Persian, Eastern;

And in doing so he has handled the brush as a valuable modelling tool, and by it not only colour and shadow, light and shade, is shown, but also the texture, the material, and the technical structure of a building is studied with equal care. It is evident that, in each of these masterly drawings, the actual drawing done is a means to an end, not an end in itself. And that end is the study of plan, design, and structure, so as to be the better able to build and construct, not reproductions of the past, but new conceptions, based on a respect for tradition that admits neither conscious archaism nor strident novelties.

The value to us of such exhibitions as this is that we may discover, if we can, what it is that makes an architect;





PENCIL SKETCH OF A LARGE BUILDING WITH PORTICO AND TERRACE  
By the late Bertram Grosvenor Goodhue



PEN AND INK SKETCH "OF PERMAN GARDENS"  
By the late Bertram Grosvenor Goodhue



or enables a man who builds to create, from the educated recesses of a richly endowed capacity, something we can regard, for its quality, as fine architecture. We seek, and I think we find, that this ability to endow building, mere

plan; to its development and realisation by a use of scientific knowledge and experience; and then to the co-ordination of the whole so that all the many and varied aspects of design are resolved into an ordered



BLACK CRAYON SKETCH FOR A HOUSE IN WESTMINSTER, NEW YORK  
By the late Bertram Grosvenor Goodhue

practical, sensible structure, with an indefinable imaginative, poetic charm, comes from a power to combine in one result what seem to be opposing, contending qualities of the mind. A reasoned common sense must evidently be applied to the solution of the practical problems of a

unity till they emerge as one single, satisfying, imaginative conception. We may see in his work how Bertram Grosvenor Goodhue proved that these things were necessary, that they were possible. For it is evident that he possessed this power in a very large degree.

## The Proposed Charing Cross Bridge

The following letter from Sir Banister Fletcher, the President of the Institute, on the proposed Charing Cross Bridge appeared in *The Times* of 28 November:—

27 November, 1929.

To the Editor of "*The Times*,"—

DEAR SIR,—The scheme for the new bridge at Charing Cross and its approaches has not been officially published, and the public has not been informed whether the plan drawn up by the engineers and Sir Edwin Lutyens has, in fact, been adopted. Through the courtesy of the Clerk to the London County Council the Royal Institute of British Architects has been able to obtain the following particulars of this plan. The river at this point runs

north and south. On the east side of the river, and at a point just east of Waterloo Station, it is proposed to form a circular place of a diameter of some 370 feet, from which eight streets radiate, Oakley Street south, the New Cut north-east, Waterloo Road north-west and south-east, and on the north side between Waterloo Road and the New Cut, the new roadway to Charing Cross Bridge, which ascends by a steep curved ramp (about 1 in 29) till it is high enough to pass over the Waterloo Road side by side with the Southern Railway. The new roadway then continues into the straight run across the bridge, leaving on the right or north side, a triangular area extending up to Waterloo Road and the river front, the whole of



which is to be occupied by the Southern Railway new terminal station. On the left or south side of the new roadway, an area extending south to the L.C.C. County Hall and east to York Road is to be developed by the L.C.C. At the point where the new roadway going west reaches the river, a square is formed, and within this square the road branches right and left on a lozenge-shaped plan returning to the straight on the bridge or west side. From the north and south apex of this lozenge plan, roadways are taken north to Waterloo Road, and southwards with returns to York Road, which it joins at the point entered by Chicheley Street north-east of the L.C.C. Hall.

The new road crosses the river on a bridge on the site of the existing railway bridge, passes over the Embankment to a pear-shaped place from one corner of which it continues west-north-west to another lozenge-shaped place east of St. Martin's Church, entered by Duncannon Street and the Strand from south-west, by the Strand from north-east, by the new road south-east and the continuation of the new road to north-west to the west of Charing Cross Hospital. Coutt's Bank, St. Martin's Rectory and Schools, and other buildings are removed, and a wide empty space is left to the east of the National Portrait Gallery, extending from the Gallery to the Hospital east and west, and from St. Martin's Church to the existing buildings north of the Cavell Memorial north and south.

This scheme is open to very serious objections on the score of traffic, of cost, of the development of London on the Surrey side of the river, and of the failure to provide any adequate opportunity for fine architectural treatment.

#### 1. TRAFFIC.

(a) The proposed position of the station interferes with traffic north and south on the Surrey side of the river. The Belvedere Road is stopped altogether, the York Road would have to pass under a tunnel some 350 feet long, and there would be no other roadway.

(b) Waterloo Road would also have to pass under a tunnel of the railway, and the new roadway, about 350 feet long.

(c) No provision is made in the scheme for a continuous roadway passing along the river front as on the Middlesex side.

(d) On the west or Middlesex side of the river no provision is made for access to the Embankment or Northumberland Avenue, and there is no direct outlet for traffic going north-west. The lozenge-shaped place intersected by the Strand, which occupies some two acres of ground, duplicates the roundabout of Trafalgar Square, and as all traffic crossing the bridge must enter from the Strand, traffic would be seriously congested at this point.

(e) The scheme makes no attempt to meet the requirements of traffic outside the immediate neighbourhood of the new bridge and station, or to improve the access to and from London from the Kent and Surrey side. Any proposals for alteration of roads should be part of a far more comprehensive scheme than is suggested by the official plan.

#### 2. COST.

The cost of this scheme is enormous without compensating advantage in the development of frontages. On

the west side it involves the destruction of Coutt's Bank, Gatti's Restaurant, the Schools and Rectory of St. Martin's-in-the-Fields, and other buildings. On the Surrey side the whole of the north side of the new roadway from the river nearly up to the existing Waterloo Junction station, a length of over 1,500 feet, would be a blind wall of the new station and of the adjoining portion of the railway.

#### 3. DEVELOPMENT ON THE SURREY SIDE OF THE RIVER.

The site allotted to the new station comes right up to the river instead of being set back at some distance from it. This renders impracticable that opening up and development of the district on the Surrey side between the river and the existing railway from London Bridge to Charing Cross Bridge, which has long been regarded as an urgent necessity.

It has been suggested that the whole idea of a station above ground is out of date, and that the right solution is to place it underground. If this is practicable, it would remove some of the most serious objections to the official scheme.

#### 4.

In regard to architectural treatment this scheme appears to have been designed without any reference to the possibilities of great monumental design.

(a) It does away with the possibility of a long vista. By an alteration of the line of the bridge and roadway it would be possible to get an uninterrupted vista from the south-east corner of the National Gallery and St. Martin's Church right through to the high ground beyond London to the south-east. With the exception of the Mall there are no vistas in London, and a vista such as would be possible at Charing Cross would be of inestimable value to London from every point of view.

(b) The pear-shaped place on the west side where the roadway turns north-west, would render any satisfactory architectural treatment here impossible.

(c) The blind wall of the station and railway on the east side would be exceedingly ugly. Beyond this point the road continues anyhow, and no consideration seems to have been given to the effect this would have on the architecture.

The Royal Institute of British Architects views with very grave concern the possibilities of the plan of this great undertaking being settled on wholly inadequate consideration. So far the scheme appears to have been determined solely with regard to the interest of the Southern Railway and the supposed requirements of traffic. There are other considerations of first-rate importance which should be taken into account in the public interest, not only for this but for future generations, and before any final decision is made in regard to the bridge, the roadway, and the station, the Royal Institute submits that the whole question should be examined *de novo*. Other schemes which have been proposed should be investigated, further schemes should be invited in competition in order that no effort may be spared to ensure the success of the greatest undertaking for the improvement of London made since the formation of the Thames Embankment.—Your obedient servant,

BANISTER FLETCHER.



On 2 December *The Times* published a letter on the same subject by the Rt. Hon. Lord Esher, which we give below:—

*To the Editor of "The Times,"—*

SIR,—In common with other members of Parliament I shall be called upon to give a vote for or against the Charing Cross Bridge scheme. Politics are not involved in this matter. The ordinary leadership of parties is abrogated. As no lay examination of so technical a problem is possible, anyone called upon to vote for or against the Bill must look to the most competent authority for guidance. I, for one, shall accept the leadership of Sir Banister Fletcher, speaking on behalf of the Royal Institute of British Architects, and of Sir Reginald Blomfield, speaking forcefully, as he always does, for himself. My vote will be given against the Bill; and if a proper whip up of Peers is issued, the result cannot be in doubt.—Yours faithfully,

ESHER

*The Times* of 3 December contained the following letters from the President and Mr. W. R. Davidge:—

*To the Editor of "The Times,"—*

SIR,—In the article on Charing Cross Bridge in Saturday's issue of *The Times* there occurs the statement that "the view in official circles yesterday was that the project has gone too far now to admit of amendment and that alternative proposals have come too late." This attitude as a reason for proceeding with the official scheme cannot be allowed to pass unchallenged. The statement itself cannot be regarded as correct; for alternative schemes existed and were made public long before the present official scheme was put forward.

To take two only: as long ago as 1916 the very practical and straightforward scheme for a low level bridge by the late Edwin T. Hall, F.R.I.B.A., was published in the R.I.B.A. JOURNAL. Then there was the somewhat similar but perhaps even better plan as regards the distribution of traffic and freedom from insanitary approach viaducts of Messrs. Niven, Caroe, and Muirhead. These schemes were not "too late," but apparently they were too early to arrest the serious attention of the responsible authorities. In addition, there has actually been a public exhibition of several possible plans for all to see at Lancaster House, the headquarters of the London Society. These alternative proposals have thus been in advance of the official scheme, but what is undoubtedly true is that occupation with the official scheme has so blocked the way and has been such an objective association in official minds as to make them apparently hardly conscious of these other already existing schemes, and certainly there has not been that serious consideration of their merits or of suggestions contained in them which might well have been incorporated in any final scheme.

The project, it is also said, has gone too far to admit of amendment. That may be, but it still admits of rejection. Delays are proverbially dangerous, but this is the exception that proves the rule, and, in the interests of the right development of Central London, south as well as north of the Thames, we call delay to our help.

The scheme as at present conceived would undoubtedly be productive of a festering slum area in the centre of London. The present Government and the London County Council should surely be the last authorities willing to promote such a scheme. I plead for delay as essential to a right decision. Let there be further delay, let there be further negotiations with the Southern Railway, but let us not be in a hurry to carry out a project which will be pointed to for all time as London's monumental mistake.—Your obedient servant,

BANISTER FLETCHER.

*To the Editor of "The Times,"—*

SIR,—The dignified protest made by the Royal Institute of British Architects against the danger of rushing into a hasty and ill-digested scheme for Charing Cross Bridge deserves the widest consideration and attention. For over 20 years the architectural profession has pressed for a road bridge at Charing Cross worthy of its position, and it is a cause for serious anxiety and disquiet that, after all these years, there should be a possibility of London having thrust upon it a proposal of immense importance, the details of which have not been properly or fully considered.

The proposal which is now seen by the public for the first time is an entirely different one from that recommended by the Royal Commission on Cross River Traffic. It is not the plan which was recommended by the advisory engineers appointed by the Ministry of Transport. It has, so far as is known, not been considered or recommended by the engineer recently appointed to carry it out, and the scheme was apparently prepared before his appointment. Sir Banister Fletcher's letter shows that the present proposal is entirely against the weight of architectural opinion, and the implications of the scheme have not, so far as is known, been considered by any town-planning authority. It cannot, in its latest form, have been fully considered in detail even by the London County Council themselves, and it was put forward at the last meeting before the recess frankly in utter weariness of the flesh, in order to get what was called finality, the sole argument in its favour being the suggestion that it is the only scheme the railway company will accept. The shareholders did not by any means unanimously take this view, and the passengers have not even been consulted in any shape or form.

If the scheme goes through in its present form the future replanning of the Surrey side will be rendered almost impossible. Waterloo Road and York Road will both be turned into dark and dismal thoroughfares and for all time the railway viaduct across South London will perpetuate miles of unnecessary slums and derelict property. The present difficulty of all connected with the scheme is the insistence of the railway in keeping above ground. An underground loop railway from London Bridge to the City, Charing Cross, and Waterloo would remove most of the difficulties and leave the sites of the present railway and its bridges free for the development of this all-important part of London on sound lines.—Yours faithfully,

W. R. DAVIDGE.

Past President, Town Planning Institute



## Allied Societies

*(The attention of Members of the Allied Societies is particularly called to this page)*

### ESSEX, CAMBRIDGE AND HERTS SOCIETY OF ARCHITECTS.

#### HERTFORDSHIRE CHAPTER.

The inaugural meeting of the Hertfordshire Chapter of the Essex, Cambridge and Herts Society of Architects was held at St. Albans on 30 October, when the party was met by the Very Rev. the Dean of St. Albans at the West Front of the Cathedral.

The members and their friends were conducted round the Abbey by Sir Charles Nicholson. They then visited places of interest in the city, and at 4.30 were given a civic reception in the Town Hall by the Mayor and Corporation, who entertained them to tea.

After tea a meeting was held at which Mr. Clough Williams-Ellis gave an address on the preservation of the amenities of a city like St. Albans.

The company then adjourned to the Red Lion hotel for dinner, the chair being taken by Mr. Percival C. Blow [A.], who was supported by the Mayor, the Dean, Mr. Ian MacAllister, and representatives from the other Chapters in the district.

### ESSEX, CAMBRIDGE AND HERTS SOCIETY OF ARCHITECTS.

#### WEST ESSEX CHAPTER.

A conference was held at Romford on Monday 4 November, under the auspices of the West Essex Chapter of the Essex, Cambridge and Herts Society of Architects, Mr. H. T. Muggeridge, M.P. for the Romford Division, in the chair.

The Romford Rotary Club, under the presidency of Mr. A. W. Gay, entertained the conference to lunch, when Mr. S. Phillips Dales [E.], gave an address on "Open Spaces."

Mr. Dales said the subject was one of great importance to Romford, and he was by no means satisfied with the progress made in the years since the Rotary Club took the matter up. He thought the Councils would be wise to say what their ultimate aim was, and whether they desired that the rapidly narrowing strip of land between Romford and Chadwell Heath should be kept open. The value of open spaces was an important thing indeed to the public. He referred to visits paid to the Hudson Cañon in America, where a road cut in the face of the rock enabled a long hidden view to be exposed, and to Prague, where there was a wide thoroughfare much like the Romford Market Place, with its slope crowned by the National Museum, as the Market Place would be when they had their Town Hall. Here they had an open space which the people in the future could make a really beautiful place. It was the work of this generation to keep the open spaces, and he would rather see money spent in that way than in stone war memorials.

He said he hoped Mercury Gardens would never be parted with by the Council for buildings, because he could see it made into a very beautiful place, where the man who was tired with the bustle of life in the town could find a resting-place. Regarding Raphael Park, it was about 20 years ago that the Spoon Pond lost its water, when a deep sewer was put in at Gidea Park. When that happened he went to the spot, and he could not help but exclaim at its possibilities for development. Tennis courts had been put there, but he would like to see at the end of the straight portion a pavilion facing bowling greens and courts to form a background for a raised platform, which would take an open-air orchestra, or where children's pageants could be performed. He would like to see there a bathing pool for the children who could not get to the seaside, with a shore where they could make their castles. The earth could be raised to make a natural bank, and cypress or other shrubs could be planted to form a screen from the north-easterly winds. It would make a magnificent forum.

Mr. Dales said the Council were to be congratulated upon securing the playgrounds they had, particularly the Cottons recreation ground. If he were a boy what he would miss there would be the jungle land. He would like to see some more land acquired and left in its natural state. The Hornchurch Council had acquired Hylands Park, and some fine planning was to be done in its lay-out, upon which they were to be congratulated. They had also just had a windfall in the shape of a town hall. He was a Hornchurch ratepayer, and he did not think he would grumble if some of the money saved by this gift were devoted to the acquiring of open spaces. Nor did he think the public of the district would grumble if they were shown what it would mean to their children.

After touching upon allotments the speaker referred to building on the arterial roads, and suggested that it would be better to build upon roads which ran at right angles to these thoroughfares. It would not be a great hardship to leave some of the land for beautification purposes, and then the motorists would have no excuse for speeding along roads they called uninteresting. The Crown lands which existed between Romford and Chadwell Heath were being filled with buildings, and he had approached their Member of Parliament upon the importance of leaving the land free.

Councillor Durrant, Mr. J. Portnoi and Mr. E. Lambert took part in the discussion that followed. Councillor Hole proposed a vote of thanks to Mr. Dales. In the course of his speech he said that if they could create public opinion by this discussion they were going to do some good, even if they only got a half of all that had been suggested. As regards the Crown lands, the Council had already, through the instrumentality of Councillor England, sent to the Government a request that they should preserve the belt of land surrounding their district, and he commended that to their Member for strengthening their attitude. He also asked the representatives of Hornchurch Council to back them up and to send a similar representation from their district. He did not think the Urban Councils had been backward in endeavouring to provide open spaces. Romford Council had purchased land from the main road to Carlton Road to add to their park and they were already in possession of Cottons; and a year ago they acquired more acres in the north to utilise as another public park. Hornchurch Council had acquired land in Park Lane, Hylands Park, Langtons, and other spaces in South Hornchurch and Harold Wood.

Mr. Muggeridge, in seconding the vote of thanks, said there was a great responsibility resting upon the Urban Council for what they did now would decide the future of the place. Those who were real local patriots would see it was for them to make the district committed to their care more beautiful than it was to-day, and see that its beauty was retained for posterity. He had been in communication with the Commissioner of Crown lands, Mr. Noel Buxton, and although nothing definite had yet been done, the answer he received was very favourable. As one who had acquired a fondness for their old Market Place, and the district, which suggested one of the old posting towns they read of in the pages of Dickens, he hoped they would preserve its best features and improve the town for future generations.

After the luncheon the party boarded a number of cars supplied by Rotarians, and, headed by Councillor Hole, made a tour of the refuse dumps to inspect the Bradford scheme of destruction as operated, and of the housing estates.

Tes at the Red Triangle Club at Romford was followed by a conference on "Better Houses for the People," with Mr. Muggeridge in the chair.

Mr. Muggeridge, in opening the discussion, said it had been said that the housing problem was solved as soon as



one had got one's own house, but the problem was more serious than that. It was to find suitable houses for those who could not, and perhaps ought not, to become purchasers of their houses. The man who earned about £3 per week was entitled to a home of his own, if possible with a bit of land round it.

Councillor England said that houses built under the Addison and other schemes were too expensive and, even if not, the occupiers had to go on paying rent, or move at a time of life when increased comfort should come his way. What was needed was decent cottage accommodation at a minimum cost. The Small Dwellings Acquisition Acts only empowered loans up to 90 per cent. of the value, but the Councils ought to be able to lend more. High rates and taxes were keeping back architectural development.

Councillor Crowe said the subsidy helped to provide houses, but not at a price which the applicant could afford to pay. He felt that the subsidy had not reduced the cost of building, but had enhanced it. The speaker referred to "indiscriminate" laying out of estates with no thought except to get as many houses on the frontage as possible. Lay-out should be controlled with a view to preserving the amenities of the countryside.

Councillor Hole said he did not see how the difficulty in regard to houses for men earning £3 a week could be met by the local governing body. The provision of such houses was more a national matter which should be met out of national funds.

#### THE GLOUCESTERSHIRE ARCHITECTURAL ASSOCIATION

A meeting of the Gloucestershire Architectural Association was held at the Spread Eagle Hotel, Gloucester, on 20 November, Mr. Thomas Falconer, F.R.I.B.A., President, being in the chair.

After dinner, Mr. F. J. Butler, of Wolverhampton, representing Messrs. Josiah Parkes and Sons, Ltd., and Messrs. Chubb and Sons Lock and Safe Co., Ltd., gave a lecture on "Locks and Lock Making." The lecturer traced the history of lock making from Egyptian times, and explained the construction of various types of modern locks, including various combination and time locks for strong room doors.

The lecture was illustrated by lantern slides, including photographs of many beautiful lock cases and keys of mediæval and Renaissance craftsmanship.

A vote of thanks to the lecturer was passed on the proposition of Mr. A. Linton Iredale, and seconded by the Honorary Secretary, Mr. Harold F. Trew.

#### MANCHESTER SOCIETY OF ARCHITECTS.

The annual dinner of the Manchester Society of Architects was held in the new Masonic Temple designed by Dr. Percy Scott Worthington. Dr. Worthington has been chosen by the R.I.B.A. for presentation to the King as Royal Gold Medallist for next year.

Mr. J. T. Halliday, president of the Society, in his opening remarks congratulated Dr. Worthington upon being chosen for the highest honour which architects could pay. Sir Banister Fletcher, President of the Institute, said it was a magnificent thing for Manchester that it should have produced a Royal Gold Medallist, and it was a great pleasure to see Dr. Worthington "in the latest creation of his fertile brain." He congratulated the man who had come by right of his work into so great a gallery of architects. Mr. Vincent Harris, the architect of the Town Hall extension, added his congratulations.

Mr. Harris's speech was chiefly concerned with the necessity for open competition for large architectural works such as that planned by the Government, and he suggested that this was the only way to use fully the men now trained in the schools. He was, he said, a confirmed evangelist of the system of open competition. It had produced such noble piles as St. George's Hall, Manchester Town Hall, Leeds Town Hall, Liverpool Cathedral, National Museum of Wales, National Library of

Wales, Port of London Building, the London County Hall, and other buildings, all striking contributions to our national architecture and all the work of young men.

Manchester had always been the school of advanced thought, and at the start of modern municipal government, when it required a building to house its administrative departments, it was broadminded enough to throw open the scheme to competition. The successful design was the forerunner of those town halls which had offices surrounding a large public hall. Some time after London was able to follow the example of the city and embark on the splendidly conceived plan of the late Mr. Ralph Knott, which was only now being brought to fruition.

The Institute and its Allied Societies must see that the competition system was kept alive. In a recently inspired speech by a Minister of a Government department it was strongly inferred that future national buildings would be carried out departmentally. That system was a menace both to the art of architecture and to its profession.

Mr. Halliday proposed the toast of "The Institute and Allied Societies." He recalled that Sir Banister Fletcher at the beginning of his year of office had entered the lists with a letter upon the proposed Charing Cross Bridge. That suggested it was going to be a year of fights. There was also the business of the great Government building on the Embankment to be decided, and he believed Sir Banister would prove to the Government that there were some oversights of sportsmanship in these things.

Sir Banister Fletcher, in replying to the toast, spoke of the effect of tradition upon architectural usage. He doubted whether there had ever been a time which offered such opportunities to architects. When one considered the novel types of structure which could be used, it seemed clear that architects had a great possession. There seemed in the past no time in which architecture and the community were so bound up as at present. He also spoke of the work of the Greater London Regional Planning Committee. A deputation had recently gone to Mr. Arthur Greenwood, and had from him an assurance that a new Town Planning Act would shortly be attempted which would make it much more easy for such committees to take the summary action they needed in face of present difficulties. They needed sufficient powers to deal with amenities of the countryside.

Mr. James R. Adamson, in proposing the toast of the "City of Manchester," said that in that city many fine new modern buildings were springing up which could at least hold their own with those of any part of the country.

Councillor Norton Barclay, the Lord Mayor, replied for the city, and Alderman Will Melland replied for the guests.

#### SOUTH WALES INSTITUTE OF ARCHITECTS CENTRAL (CARDIFF) BRANCH.

About 250 past and present students of the Welsh School of Architecture and their friends were present at a dance arranged by the School of Architecture Club, which is affiliated with the South Wales Institute of Architects (Central Branch), on 16 November in the Technical College, Cardiff.

The students of the Welsh School of Architecture designed and carried out an effective scheme of decoration in black and orange, with the use of flood lighting, for the Assembly Hall, in which the dance was held.

Among those present were Mr. C. J. Bartlett, Chairman of the School of Architecture Club and President of the Students' Union Council; Mr. H. J. Hughes, Secretary of the School of Architecture Club; Mr. J. W. Bishop, Mr. C. Thatcher, Mr. J. P. Ward and Miss M. Murray, members of the Organising Committee; and Mr. W. S. Purchon, M.A., A.R.I.B.A., Head of the Welsh School of Architecture.

#### WEST YORKSHIRE SOCIETY OF ARCHITECTS.

Mr. G. H. Foggitt, F.R.I.B.A., delivered his presidential address before a meeting of the West Yorkshire Society of Architects, on 21 November, at the Hotel Metropole, Leeds. In the course of his remarks he observed:



**R.I.B.A.**—Turning for a moment to the parent Society—the Royal Institute of British Architects—I would refer to the Development Scheme which came before us some months ago. The proposals then put forward received the sanction of a large majority in the postal vote taken on the subject, and the effect of this Development Scheme should be ultimately to serve the best interests of architecture and architects, as well as to strengthen the position of the Royal Institute in representing the profession.

The Bill for the Registration of Architects has not yet been placed on the Statute Book. The measure has been passed through the House of Lords, and has been approved in principle by the House of Commons and, though it has not secured a place in the ballot for this Session of Parliament, it is confidently hoped that it will not be long before success crowns the efforts of those who have worked so perseveringly for its achievement.

A subject which is at present receiving the careful consideration of the R.I.B.A. is the growth of official architecture—which, it is contended, is not in the best interests of the Art of Architecture and its advancement.

It is a matter of general interest that the R.I.B.A. has recently acquired an important site in Portland Place for its new headquarters and it has been decided by the Council of the R.I.B.A. that an open competition shall be held for the selection of an architect in due course. The R.I.B.A. Council has thus wisely decided to follow the advice it gives to public bodies in the case of important new buildings. We shall all look forward with interest to see the result of the competition in this case and an excellent opportunity will be given to some budding aspirant to win his spurs. Traditionalist, or modernist—which will win?

**Architectural Education.**—The standard of architectural education in this country was never higher than it is to-day. The raising of the standard is manifesting itself more and more clearly each year, and this is surely as it should be, and is a fact of great encouragement to all who really care for the highest interests of our art.

We all recognise that there is a strong modernist spirit abroad to-day. I should like to express a word of warning lest the striving for novelty be allowed to get the better of our judgment. The study of traditional work should not be jettisoned because the extremists of modern design seem to have travelled far from it. A sound knowledge of, and appreciation for, the work of the past should not cramp our style, if we have originality and imagination. If we have not these gifts of originality and imagination, then surely it is better to work on safe lines rather than to let a striving after novelty and eccentricity get the better of us.

**Matters of Local Interest.**—In Leeds, the past twelve months has been interesting in that it has seen signs of material progress being made with the construction of the new street which, it is now decided, is to be called The Headrows. We are able to see the first of the buildings on the north side of that street in the premises of the Leeds Permanent Building Society's new headquarters, of which our Vice-President, Mr. G. W. Atkinson, is the architect. At the junction of The Headrows with Vicar Lane, another building is rising under the supervision of Messrs. Kinson, Parish and Ledgard and Pynan, and between the two buildings named, demolition is proceeding of old property in readiness for the erection of further new buildings.

Schemes are afoot for other buildings on the north side of the same street, and we were pleased to learn that Mr. Atkinson had been commissioned to design the new store for Messrs. Lewis, of Manchester. The progress of the various buildings is being and will be watched with much interest, and, in spite of criticisms which we may have made or may make, the Improvements Committee of the Leeds Corporation is to be congratulated in that it has had the courage and the vision to carry the scheme through.

Progress is being made with the Leeds University Scheme and if the first of the new buildings by Messrs. Lancaster, Lucas and Lodge is a criterion of what the finished scheme will be, Leeds will have a University housed in a manner, and with a dignity and beauty well worthy of its standing in the world of Education.

In Bradford, the competition recently held for the planning of the central area is of interest and illustrations of the preliminary designs have within the last week or two appeared in the Press. Mr. Eric Morley has recently completed the Chamber of Commerce building which was opened little over a week ago by the Prince of Wales. Mr. Morley is also busy with the erection of the Bradford Infirmary—a work of considerable magnitude. I merely mention these few buildings being rather more prominently before us at the moment.

Not many days ago the second part of the Leeds and Bradford Regional Town Planning Report was published; a wide and comprehensive report, with maps covering the area in which practically all of us live and work. This report should be carefully studied and we should make ourselves on fait with the proposals and recommendations there set forth as they may ultimately have a far reaching effect on the part of the West Riding when the various authorities prepare their schemes under the Town Planning Acts.

**Rural England.**—Owing to the active interest and the publicity given by the Press, these words immediately bring to our minds the campaign which is being increasingly carried on to avoid the spoliation of the countryside.

Just before the General Election, on 8 May last a letter appeared in *The Times* signed by the leaders of the three great political parties in support of the C.P.R.E. movement—giving evidence, if such were needed, of the wide appeal of the preservation of the countryside.

In July we held an exhibition at the Art Gallery, under the auspices of the Leeds Civic Society and our own Society, of material demonstrating in no uncertain way some aspects and examples of the disfigurement of the countryside. The Technical press, by publishing illustrations and drawing attention to particular offending matters are, in some cases, very materially helping in the movement and we find that some of the great commercial organisations, which have been great offenders, are seeing the error of their ways, and are withdrawing their blatant signs. It was interesting, too, to see, a few months ago, that in a town not many miles from Leeds, a firm was fined for putting up and not removing when called on to do so by the police a sign which, in the opinion of the police, disfigured the landscape.

The fringe of the whole matter has as yet only been touched, but public opinion is being educated and we hope that an evil which is widespread and was growing may effectively be checked.

One hundred and fifty years ago an onslaught of commercialism made upon England was defended upon economic grounds. It made England richer, but it also made the Black Country and the industrial ugliness of Lancashire and Yorkshire; and we could have had the industrial products without ugliness. To-day, when a similar wave of commercialism is sweeping over the land, it presents a real menace. We can have houses, roads, advertisements, electric cable standards, garages and factories without defacing England, if we will but take the necessary steps. Let us beware, lest for lack of consideration, we make a new England which none of us want and which no one will like when it is made.

The electrification of the countryside brings with it the problem of carrying the supply cables far and wide. The ideal place for such cables seems, of course, to be underground, but if questions of economy render this impossible and overhead cables must traverse the Lake District, it is surely not beyond the powers of our designers to make the supporting lattice towers graceful and beautiful and not necessarily a disfigurement. It is not possible to cover up all traces of man's handiwork, nor should it be thought necessary to do so. We must



have roads, bridges, cables, houses, and it is for us to use all our knowledge and influence to see that such things are seemly and suitable for their respective functions.

The coming of a cheap electric supply throughout the land would do a great deal to help on the question of smoke abatement. It is surprising that legislation has not done more in this direction than it has, but I have no doubt that in a very few years the ordinary coal fire, as we know it, will be superseded by smokeless methods of heating—whether by means of smokeless fuel, gas, electric or coke fires. Great progress has been made in this direction in recent years, and, if properly tackled, the waste products of combustion now shot up into the air by the innumerable chimneys of our domestic and other buildings, could be made to produce great wealth, as so many other waste products in industry have done. We are told that the upkeep of public monuments and buildings would be reduced by at least one-half if a pure and smoke-free atmosphere could be obtained. The figures given for the sootfall in Leeds, in the suburbs, is 168 tons per square mile per annum, and in the industrial districts of Leeds 342 tons per square mile. These figures give striking evidence of the seriousness and extent of the problem to be faced and we, in our own sphere, can do something if we will see to it that, so far as we may, we instal in our buildings fittings which either do not use a smoky fuel or, if they do use such a fuel, they consume their own smoke.

*Modern Tendencies and the Modernist Movement.*—The remarkable work of recent years, carried out in the various European countries, is bringing home to us the fact that the last word was not said when the Doric, Ionic and Corinthian orders were evolved. Changing methods of construction, the use of new building materials and changing standards of beauty and proportion are all playing their part in this modern movement, and we are coming to realise that, useful though tradition may be and, as I said earlier, necessary though we may count its study to be, if we allow it to be our master our architecture may become, as one writer described it, "like a charnel house, strewn with the detritus of dead epochs."

The beauty of the masterpieces of the past is not denied by the modernist, but he claims that they do not conform to our modern ideas and standards. Ideals change as history shows, our standards of proportion are changing, and the masterpiece of the past may be admired without the desire on the part of the admirer to reproduce it. Mr. Howard Robertson, when speaking to us last session, instance the Venus de Milo which, though a universally recognised work of art, did not conform to modern standards of female beauty. So in architecture, while the modernist does not necessarily decri the great monuments of the past, he feels that their reproduction does not conform to the modern ideals or requirements.

In this country we have as yet few examples of the work of this school as compared with the Continent. The tendency is perhaps most apparent in the shop fronts which indicate to us that the new spirit is in our midst, whether we admire all its manifestations or not. In many cases the striving after novelty seems to be the predominating factor, but other examples show in a remarkable degree beauty and dignity achieved by the designer's use of a wide range of new materials and of old materials used in new ways.

The use of material is being studied and investigated in ever-increasing degree. Rustless steel, enamels, plywoods, laminated woods, veneers, glass, synthetic stone and marbles: these and other materials are being experimented with and are producing interesting and beautiful results and are opening up great possibilities for the future in their use.

In proposing the vote of thanks, Mr. G. W. Atkinson, a vice-president of the Society, alluded to the wonderful smoke abatement laws in the U.S.A. Standing, he said, on the roof of one of the loftiest skyscrapers of New York, there was no smoke to be seen except that emanating from the power stations.

Mr. Norman Culley seconded the vote.

## R.I.B.A. PROBATIONERS

During the month of November 1929, the following were registered as Probationers of the Royal Institute:—

- ASHWELL: HAROLD JAMES, 12 Cambridge Terrace, Hyde Park, W.2.  
 BANHAM: CHARLES THOMAS, 62A Eynham Road, London, W.12.  
 BECKINGSALE: ALIC, The Corner House, High Street, Westbury, Bristol.  
 BRANDON: GODFREY, York House, Stanmore, Middlesex.  
 BURRIDGE: PATRICK FRANCIS, 3 Gains Road, Southsea, Hants.  
 CHITTY: ANTHONY MERLOTT, Cotton Hall House, Eton College, Windsor.  
 COOK: VINCENT NEALE, 136 Innes Road, Durban.  
 COX: JAMES HARRY, Middle Claydon Park, Bletchley, Bucks.  
 DIXON: MATTHEW TOMES, Stoney Lane House, Tardelghe, Nr. Bromsgrove.  
 DOBSON: STANLEY EDWARD, 15 Queen Street, Peterborough.  
 ENGLAND: WILLIAM HENRY OLIVER, 93 Duckett Road, London, N.4.  
 FOOT: DENIS GEORGE, 40 Clyde Road, Addiscombe, Surrey.  
 FORDHAM: GEORGE ROBERT, Mill House, Terrington St. Clement, King's Lynn, Norfolk.  
 FOX: LESLIE VERNON, 155 Castleford Road, Nornanton, Yorks.  
 GEORGE: RONALD WILLIAM, 73 Manor Road, Hastings, Sussex.  
 GILLESPIE: HAROLD, 4 Lonsdale Street, Belfast, Ireland.  
 HAWKINS: HAROLD ARCHER, P.O. Box 138, Salisbury, S. Rhodesia, S.A.  
 HOWARD: DEBORAH BENSON, Pollards, Loughton, Essex.  
 JEFFREYS: THOMAS REGINALD, 19 Glambyrdan Avenue, Uplands, Swansea, South Wales.  
 JEFFRYES: THOMAS ARNOLD, College of Art, Edinburgh.  
 JONES: EDWARD STANTON, 1 Montrose, Harold Street, Hereford.  
 KOH: CHENG YAM, 22 Buckleigh Road, Streatham Common, London, S.W.16.  
 LARA: LOUIS GEORGE CHARLES DE, Crown Hotel, Poole, Dorset.  
 LEWIS: OWEN PRYCE, 25 Venice Road, Durban.  
 LOCK: CECIL MAX, Queen's Walk, Cassiobury, Watford.  
 MCHARG: SAMUEL, 13 Prestwick Road, Ayr, Scotland.  
 MCKAY: JOSEPH, 8 Clifford Road, Stirling, Scotland.  
 MITCHELL: BERNARD CROSLAND, "Brookside," West Villas, Stockton-on-Tees.  
 MORRISLEY: HAROLD THOMAS, 2 Terrace Street, Harts Hill, Nr. Brierley Hill, Staffs.  
 MOORCROFT: JAMES RENWICK, "Lyncroft," Cliftonville Road, Belfast (N. Ireland).  
 MOORE: JOHN ERIC, 60 Marchmont Road, Edinburgh.  
 MORSE: HORN GEORGE ALFRED, c/o Mrs. A. M. A. Spence, J.P., Fullarton Estate, Adelaide, South Australia.  
 NISBET: JOHN ATHELSTAN VICTOR, 14 Old Square, Lincoln's Inn, W.C.2.  
 NISBET: JOHN VERNON, Easington, Weybridge.  
 NIXON: JOHN ARVID, 10 Meadow Bank Avenue, Sheffield.  
 NOYES: DONALD RICHARD CHARLES, 17 Linden Road, Bexhill-on-Sea.  
 PAIR: GEORGE PERCIVAL, The Cottage, Allesley, Coventry.  
 PEGGUM: WILLIAM AUBREY, 1 Hillside Road, Birkdale, Southport, Lancs.  
 POWERS: FREDERIC WALTER, 400 Innes Road, Mitchell Park, Durban.



REYNOLDS: FRANCIS MAURICE, "The Nook," Oughtlington, Lymington, Cheshire.

ROBERTSON: GEORGE, 235, Dalkeith Road, Edinburgh.

RUSHBROOK, SIDNEY GILBERT, 38 The Avenue, Moulsecomb, Brighton.

SHEPHERD: JAMES WATT, c/o Mrs. Doctroce, 11 Orwell Place, Dalry Road, Edinburgh.

SHOLL: THOMAS, 17 Lifford Road, Camberwell, S.E.3.

SMITH: CHARLES GEORGE WILLIAM, 38 Elmshaw Road, Rochester, S.W.15.

TURNER: SYDNEY, 16 Inchmery Road, Catford, S.E.6.

TURNER, WILFRIED JOHN CARPENTER, Overton Rectory, Hants.

VASDEVY: SRI RAM, 21 Croywell Road, S.W.7.

WHEELER-CARMICHAEL: SAMUEL DENNIS, 22 Portman Street, London, W.1.

WILES: HAROLD GARDNER, 29 Grosvenor Road, Richmond, Surrey.

WILLIAMS: MORRIS, Gwyon House, North Curry, Taunton.

YOUNG: JAMES DICKSON, 37 Stewart Terrace, Edinburgh.

## NOTES FROM THE MINUTES OF THE COUNCIL.

4 November 1929

FIRST INTERNATIONAL CONGRESS FOR CONCRETE AND REINFORCED CONCRETE, LIEGE, SEPTEMBER 1930.

Mr. H. D. Searles-Wood (F.) was appointed to represent the R.I.B.A. on the Committee which has been set up to make arrangements for the First International Congress for Concrete and Reinforced Concrete to be held at Liege in September 1930.

### PRESENTATION TO THE LIBRARY.

The cordial thanks of the Council were conveyed to Mr. Maxwell Ayrton for the gift of his book *Wrot Iron* to the library.

### THE FELLOWSHIP.

The Council, by a unanimous vote, elected the following architects to the Fellowship under the powers defined in the Supplemental Charter of 1925:—

Mr. W. J. Palmer Jones.

Mr. D. A. Stewart [L.] (Perth, Scotland).

Mr. L. L. Powell (Brisbane).

Mr. P. A. Oakley (Melbourne).

Mr. P. R. Claridge (Adelaide).

### MEMBERSHIP.

*Election, 2 December 1929.*—Nominations for membership were approved as follows:—

As Hon. Fellow—One application.

As Hon. Associate—One application.

As Hon. Corresponding Member—One application.

As Fellows—20 applications.

As Associates—81 applications.

# Notices

## THE FOURTH GENERAL MEETING.

The Fourth General Meeting (Ordinary) of the Session 1929-30 will be held on Monday, 16 December 1929, at 8 p.m., for the following purposes:—

To read the Minutes of the General Meeting (Business) held on 2 December 1929; formally to admit members attending for the first time since their election.

Mr. M. H. Baillie Scott (F.) to open a debate on "Are Building Bye-laws Destructive of Rural Beauty?"

## CHRISTMAS HOLIDAY LECTURES ON ARCHITECTURE FOR BOYS AND GIRLS.

The success of the informal talks on Architecture to boys and girls which were given during the Christmas holidays last year and the previous year has emboldened the Council of the Royal Institute of British Architects to arrange a further series for the forthcoming holidays.

At the invitation of the Council, the Hon. Humphrey Pakington (A.) has kindly consented to give the talks, which will be illustrated by lantern slides, and he has chosen as his subject "English Architecture":—

I.—How it began.

II.—How it grew.

III.—What it means.

The first lecture will deal with the growth of the Gothic styles in this country, due to the advance of civilisation and the increasing power of man over his materials.

The second lecture will describe the great awakening of the world in the days of the Renaissance, followed by the Age of Revivals and the Romantic Period, and culminating in Victorian days in the battle of the styles.

Architecture, to be understood, must be approached through History. But while ability to fix the date of a building by its style is interesting and useful, it is not the important thing in the study of architecture, any more than the dates of the Kings are important in history. Just as the chief use of a study of the past is to tell us how to live our own lives, so the chief use of studying old buildings is to tell us how to build to-day.

The third lecture will deal in a simple way with the appreciation of architecture, and special attention will be paid to modern tendencies. Old and new buildings will be contrasted, and it will be shown how each represents its own age. While we can admire the old days, it is no use sighing for them. We do not honour the old architects by copying their work blindly. We honour them when we recognise them as the modernists of their day, striving to represent their own age fitly in their architecture. The important people, in architecture as in everything else, have always been the most advanced.

But though we may consider ourselves advanced to-day, we must remember that the world is still in its childhood; architecture has hardly begun yet; we must look back for guidance, but it is still more necessary to look forward, for the future is more important than the past.

The lectures will be given on the following dates:—

Monday, 30 December 1929, at 3.30 p.m.

Wednesday, 1 January 1930, at 3.30 p.m.

Friday, 3 January 1930, at 3.30 p.m.

Tickets for any or all of the lectures may be obtained from the Secretary of the Royal Institute of British Architects, 9 Conduit Street, London, W.1. The tickets are free.

Owing to the limited seating space of the hall it is hoped that application will not be made for more tickets than can be used.

## CONDITIONS OF CONTRACT.

In answer to many inquiries made by members regarding the recognised Form of Contract, the minute of the General Meeting (Business) held on 10 June 1929, is reprinted below for information:—

"RESOLVED that this meeting of the R.I.B.A.



after full consideration of the terms of the proposed draft of the New Form of Contract now again submitted as an amendment of the existing and agreed 1909 Form of Contract, is unable to accept the same, but concurrently renews its offer to reconsider the amendment of the 1909 Form where necessary."

#### ELECTION OF MEMBERS, 7 APRIL 1930.

Associates who are eligible and desirous of transferring to the Fellowship are reminded that if they wish to take advantage of the election to take place on 7 April 1930 they should send the necessary nomination forms to the Secretary R.I.B.A. not later than Saturday, 11 January 1930.

#### LICENTIATES AND THE FELLOWSHIP.

The attention of Licentiates is called to the provisions of Section IV, Clause 4 (b) and (c) of the Supplemental Charter of 1925. Licentiates who are eligible and desirous of transferring to the Fellowship can obtain full particulars on application to the Secretary R.I.B.A., stating the clause under which they propose to apply for nomination.

#### APPLICATIONS FOR MEMBERSHIP.

##### ELECTION, 3 FEBRUARY 1930.

The following applications for election have been received. Notice of any objection or other communication respecting the candidates must be sent to the Secretary for submission to the Council prior to Monday, 6 January 1930.

##### AS HON. FELLOW (1).

LLEWELLYN: SIR WILLIAM, K.C.V.O., P.R.A., Little Blundell House, Campden Hill, Kensington, W.8. Proposed by the Council.

##### AS HON. ASSOCIATE (1).

BLOUNT: COLONEL EDWARD AUGUSTINE, C.B.E., F.S.I., Chevalier de la Légion d'Honneur, Agent to Lord Howard de Walden, Southwell, Worth, Sussex. Proposed by the Council.

##### AS FELLOWS (10).

ARCHER: HOWARD DENNES [A. 1919] P.O. Box 58, Nairobi, Kenya Colony. Proposed by T. W. Troup, Joseph Hill and W. Harding Thompson.

BURNETT: PERCY VIVIAN [A. 1921], 107 Jermyn Street, S.W.1; 66 Pembroke Villas, W.11. Proposed by Sir Banister Fletcher, Digby L. Solomon and M. N. Castello.

EPHRAÏM: CREIL JACOB [A. 1921], 107 Jermyn Street, S.W.1; 74 Wildwood Road, N.W.11. Proposed by Arthur Keen, S. B. Caulfield and Basil Oliver.

FITZGERALD: GEORGE EDMONDS [A. 1909], 35 Gresham Buildings, Pretoria, South Africa; 833 Church Street, Arcadia, Pretoria, South Africa. Proposed by J. Lockwood Hall, Robert Howden and Ernest M. Powers.

HAMELHINE: CYRIL FRANCIS WILLIAM [A. 1910], King's Walk, Nottingham; Papplewick, Nottinghamshire. Proposed by George H. Wildows, Alfred J. Thraves and H. Alderman Dickman.

And the following Licentiates who have passed the qualifying Examination—

ADAMSON: JAMES ROBERTSON, 10 Silverwell Street, Bolton; 417 Church Road, Bolton. Proposed by John B. Gass, Arthur J. Hupe and R. Hermon Crook.

BIRD: HUGO RITCHIE, St. Thomas' Gate, Brentwood, Essex; Ingleswood, Mount Avenue, Hurton, Essex. Proposed by Chas. J. Dawson, Wykeham Chancellor and Henry W. Allardyce.

ODDES: CLEMENT COPELAND, 42 Silver Street, Leicester; The Cottage, Ashfield Road, Leicester. Proposed by J. Stockdale Harrison, Arthur H. Hind and Albert Herbert.

SCOTT: WILLIAM, 19 Silverwell Street, Bolton; "Kendal-mere," 177 Chorley New Road, Bolton. Proposed by John Bradshaw Gass, Arthur J. Hupe and Joseph Foy.

And the following Licentiates who are qualified under Section IV, Clause 4 (c ii) of the Supplemental Charter of 1925—

LAKE: GEORGE FREDRICK, 62 Park Avenue North, N.8. Proposed by H. W. Hetherington Palmer, Henry Tanner and Fredk. R. Hiorns.

##### AS ASSOCIATES (7).

BAYNE: OSCAR ANDREW [Final], 100 Tooronga Road, Hawthorn, Melbourne, Australia. Proposed by Kingsley A. Henderson, Evan Smith and H. W. Tompkins.

CHAPLIN: SIDNEY GEORGE [Final], 27 Doughty Street, W.C.1. Proposed by Professor A. E. Richardson, E. Stanley Hall and Arthur Stratton.

HEATH: CLIVE PATTERSON [Passed five years' course at Sydney University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], 48A Addison Road, Manly, Sydney, Australia. Proposed by Professor Leslie Wilkinson, Sir Charles Rosenthal and Alfred S. Hook.

HIGHT: GRAEME IAN CAMPBELL [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], Bamborough, Horsell, Woking, Surrey. Proposed by Howard Robertson, J. Murray Easton and E. Stanley Hall.

HIRST: WILLIAM [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], 24 Davenport Road, Durban, Natal, South Africa. Proposed by Howard Robertson, J. Murray Easton and Robert Atkinson.

PERKETT: HARRY MICHAEL [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], 2 Ranelagh Road, Rothill, Surrey. Proposed by Howard Robertson, Ernest G. W. Souster and J. Murray Easton.

WHITTINGHAM: ARTHUR BENSLY, M.A. (Cantab.) [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], The Bishop's House, Ipswich, Suffolk. Proposed by Howard Robertson, E. H. Evers and Louis de Soissons.

## Queries and Replies

[A large number of questions on points of professional practice and technical interest are addressed to the Practice and Science Standing Committees and to other Committees of the Institute.]

The Council, on the recommendation of the Science Standing Committee, have decided to adopt the procedure of publishing such queries in the JOURNAL when on matters of general interest, together with the replies of those members who, having special knowledge and experience of the particular questions, have been asked to express their opinions upon them. The scheme is based upon that adopted by the Surveyors' Institution.

The identity of the member seeking the information will not be disclosed, but the replies published will be signed by the members who have supplied them.]

Query No. 2.

#### THE FIRE-PROOFING OF THATCH.

Can you give me a recipe to render thatch fire-resisting? I should be much obliged if you could furnish me with such information, as I am confident that if people could be reassured that by the employment of some fire-proofing material the thatch could be rendered less combustible there would be more thatching done than is the case to-day.



*Reply to Query No. 2.*

The formula I recommend for fire-proofing thatch is one of the following:—

- 28 lb. Sulphate of Ammonia.
- 14 lb. Carbonate of Ammonia.
- 7 lb. Lump Borax.
- 7 lb. Boracic Acid.
- 14 lb. Lump Alum.
- 500 lb. Water (must be hot to dissolve).

Applied from the underside of the finished roof, use spraying machine, and from the outside.

On—The bunches may be dipped into a tub (6 inches to 9 inches will do) butt-end. This means much labour, and each bunch has to be laid on planks in rows or rings to dry.

Fires often occur inside the roof; therefore in my opinion the spraying process is the best, as the woodwork as well as the exposed thatch gets a good soaking. The machine should be worked at 100 to 150 lb. pressure.

CHARLES F. SKIPPED [F.].

## Competitions

### LIMITED COMPETITIONS.

The attention of the Competitions Committee has been called to an attempt which was made recently by an employing authority to infringe the spirit of the last paragraph of clause 10 of the R.I.B.A. Competition Regulations while observing the letter.

This paragraph reads:—

"Provided that nothing in this Clause shall prevent two or more members of the Royal Institute from giving advice or preparing sketch plans for the same project for a private client, if the expenditure proposed does not exceed the sum of £12,500, and if each of the members so invited be paid an agreed fee."

In the case in question a number of the local architects were invited to submit plans for a fairly important project for a fee of £1 1s. each.

The Competitions Committee express the hope that in loyalty to the profession in general and to their own interests in particular, members will insist on the payment of a reasonable fee in such cases.

### ABERYSTWYTH: PROPOSED WINTER GARDEN AND BAND PAVILION.

The Aberystwyth Corporation invite architects to submit, in open competition, designs for a Winter Garden and Band Pavilion.

Assessor: Mr. Arnold Thornely [F.].

Premiums: £100, £70 and £30.

Last day for receiving designs, 1 January 1930. Conditions of the competition may be obtained on application to the Town Clerk, Town Hall, Aberystwyth. Deposit £2 2s.

### ACCRINGTON: NEW POLICE AND FIRE STATIONS.

The Accrington Corporation invite architects to submit, in open competition, designs for new Police and Fire Stations.

Assessor: Mr. Herbert J. Rowse [F.].

Premiums: £250, £150 and £100.

Last day for receiving designs, 28 February 1930. Conditions of the competition may be obtained on application to the Town Clerk, Town Hall, Accrington. Deposit £2 2s.

### GOSPORT: PROPOSED PLEASURE RESORT AND GROUNDS.

The Council of the Borough of Gosport invite the submission of schemes for the lay-out of a portion of the Stokes Bay area as a pleasure resort, with public walks and pleasure grounds.

Conditions of the competition and a plan of the estate may be obtained on application to the Town Clerk, Town Hall, Gosport. Deposit £2 2s. [The conditions have not yet been submitted to the Competitions Committee.]

### GUILDFORD: NEW MUNICIPAL BUILDINGS.

The Guildford Corporation propose to invite local architects to submit, in competition, designs for new municipal buildings.

Assessor: Mr. T. S. Tait [F.].

Premiums: £50 and £25.

[Conditions are not yet fully settled.]

### LIVERPOOL: PROPOSED PIER HEAD IMPROVEMENTS.

The Liverpool City Council propose to offer premiums of 1,000 guineas and 500 guineas in connection with a competition for the improvement of the amenities of the Pier Head.

[Conditions are not yet available.]

### SWANSEA: MUNICIPAL BUILDINGS.

The Swansea Corporation invite architects to submit, in open competition, designs for new municipal buildings.

Assessor: Mr. Henry V. Ashley, V.-P.R.I.B.A.

Premiums: £750, £500, £300 and £100.

Last date for receiving designs, 18 January 1930. Conditions of the competition may be obtained on application to the Town Clerk, Town Hall, Swansea. Deposit £2 2s.

### ANZAC MEMORIAL BUILDING, SYDNEY, N.S.W.

The Trustees of the Anzac Memorial Building invite competitive designs for an Anzac Memorial to be erected in the City of Sydney, New South Wales.

The qualification of competitors is defined in the conditions of competitions as follows:—

"The competition is limited to Australians who are legally qualified as architects in New South Wales or who are legally qualified to practice architecture outside of New South Wales provided that no competitor shall be employed as architect to the work until he has been duly registered as a legally qualified architect in New South Wales or until other arrangements, satisfactory to the Trustees and to the Board of Architects of N.S.W., shall have been made.

"Nothing in these conditions shall preclude the association of an Australian sculptor with a competitor either during the competition or in the execution of the work.

"For the purpose of this competition 'Australian' shall mean a natural born British subject who has practised or worked in Australia either as a principal or an assistant. Provided that no Australian soldier within the meaning of Part 4 of the Australian Soldiers' Repatriation Act 1920 shall be excluded by this clause."



The competition will be conducted in two stages; the closing date for the first stage is 24 January 1930. The cost of the Memorial is to be £75,000. The conditions of competition have been approved by the Institute of Architects of New South Wales.

Conditions of competition may be obtained from the office of the Trustees of the Anzac Memorial Building, 3rd floor, Wingello House, Angel Place, Sydney, or from the offices of the Institutes of Architects in the various Australian States, or from the office of the Agent-General for New South Wales, Australia House, London.

#### OLYMPIA, LONDON: "PAVILION OF LIGHT."

The *Daily Mail*, in conjunction with the General Electric Company, Ltd., is organising a competition in connection with the lighting, heating, decorating and furnishing, and electrical equipment of the rooms of a "Pavilion of Light," which will be erected at the Ideal Home Exhibition at the Olympia, London, in March 1930.

##### Jury of Assessors:

Sir Edwin Lutyens, R.A., F.S.A. [F].

Sir Duncan Watson, J.P., M.I.E.E.

Mr. Philip Connard, R.A.

Mr. Oliver P. Bernard.

Mr. Douglas G. Tanner [L].

Mr. G. G. Wornum [F].

Premiums: For each room, 100 guineas, 25 guineas, 20 guineas.

Last day for receiving designs: 14 December 1929.

Conditions of the competition may be obtained on application to the *Daily Mail* Electrical Competition, Carmelite House, E.C.4.

## Members' Column

#### CHANGE OF ADDRESS.

MR. C. TERRY FLECK has moved to 56 Sherwood Way, West Wickham, Kent.

#### MESSRS. MACLAREN, SOUTAR AND SALMOND.

MRS. D. W. GALLOWAY begs to intimate that the Architectural and Surveying Practice of her late husband will be continued at 2 Market Street, Brechin, by Messrs. MacLaren, Soutar and Salmond, F.R.I.B.A., F.S.I., 15 South Tay Street, Dundee, who are authorised to collect the professional accounts due to the late Mr. Galloway.

#### PRACTICE FOR SALE.

A large Provincial Practice for Sale in Southern Counties.—Apply Box 2511, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

#### COLLABORATION WANTED.

A.R.I.B.A., experienced decorative designer and craftsman, would collaborate with architects in the design and execution of exterior and interior treatments of buildings.—Box 1299, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

#### OFFICE ACCOMMODATION WANTED.

WANTED, small office, separate entrance, near Bedford Square, Gower Street, Euston Road, Marylebone Road or Upper Baker Street. Rent about £30 per annum inclusive of light, heat and cleaning.—Apply Box 1122, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

#### OFFICE ACCOMMODATION.

PROVINCIAL Architects and Surveyors requiring a City address (near Law Courts), or office for interviews, etc., should apply to "Architect," 19 Falcon Court, Fleet Street, London, E.C.4.

SMALL furnished room, suitable for young architect or quantity surveyor, is available in the West-end offices of an architect, F.R.I.B.A., at an exceptionally moderate rental in exchange for small services rendered. Telephone, gas, electric light, cleaning included.—Reply Box 1690, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

## Minutes III

#### SESSION 1929-1930.

At the Third General Meeting (Business) of the Session 1929-1930, held on Monday, 2 December 1929, at 8 p.m.

Sir Banister Fletcher, F.S.A., President, in the chair.

The attendance book was signed by 14 Fellows (including 8 members of Council), 8 Associates (including 3 members of Council), and 4 Licentiates (including 3 members of Council).

The Minutes of the Ordinary General Meeting held on 18 November 1929 having been published in the JOURNAL, were taken as read, confirmed, and signed as correct.

The Hon. Secretary announced the decease of:—

David Wishart Galloway, elected Licentiate 1911, Fellow 1929, Past-President, Dundee Institute of Architects.

Edgar Horace Heathcote, transferred to Fellowship 1925.

William Lister Newcombe, elected Fellow 1880, transferred to Retired Fellowship in 1926.

Charles Bernard Benson, transferred to Licentiate Class in 1925.

and it was *Resolved* that the regrets of the Institute for their loss be entered on the Minutes and that a message of sympathy and condolence be conveyed to their relatives.

The following member attending for the first time since his election was formally admitted by the President:—

George Dudley Harbron [F].

The following candidates for membership were elected by show of hands:—

#### AS HON. FELLOW (1).

Howard de Walden and Stauford: Lord Thomas Evelyn Scott-Ellis.

#### AS HON. ASSOCIATE (1).

Stott: Sir Philip Sidney Barr, F.S.A., Broadway, Gloucestershire.

#### AS HON. CORRESPONDING MEMBER (1).

Wanscher, Vilhelm, M.A., Professor of the History of Art in the Royal Academy at Copenhagen; Honorary Member of Akademisk Arkitektforening at Copenhagen; Member of the Kongelig Norske Videnskabers Selskab at Trondhjem; Cav. Corona d'Italia; Copenhagen.

#### AS FELLOWS (20).

Broad: Malcolm Charles [A. 1918], Montevideo, Uruguay.  
Cowderoy-Dale: Frederick Charles [A. 1921], St. Leonards-on-Sea, Sussex.

Harris: Philip Capes [A. 1914], Zanzibar, East Africa.

Hooper: Charles Owen [A. 1920], Hankow, China.

Macfarlane: George Gordon, B.Sc., M.C. [A. 1921].

Minty: Robert James Hugh [A. 1922].

Mullins: Geoffrey Thomas [A. 1918].

Newman: Percival Corney, F.S.I. [A. 1902].

Nicholson: Frederick William [A. 1912], Aintree, Liverpool.

Stockdale: William [A. 1907], North Shields.

Strickland: Harley Clarence Wilfrid [A. 1919], Brecon.

Vernon: Frederick Austin [A. 1920].

And the following Licentiates who have passed the qualifying Examination:—

Clarke: Godfrey L., Bradford, Yorks.

Salmond: William, F.S.I., Dundee.

Tanner: Douglas George, Birmingham.

And the following Licentiates who are qualified under Section IV, Clause 4 (c) (i) of the Supplemental Charter of 1923:—

Davies: Charles Gilbert, Shanghai, China.

Gunson: Ernest, F.S.I., Manchester.

Hamilton: George Douglas.

Jenkins: Thomas, J.P., Burton-on-Trent.

Liddle: Edwin Fawcett Waugh, Newcastle-upon-Tyne.



## AS ASSOCIATES (81):

- Ashworth: Henry Ingham, B.A. [Passed five years' course at Manchester University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], Poynton, Cheshire.
- Barker: Frances (Miss) [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice].
- Bartholomew: George [Final], Falkirk, Stirlingshire.
- Beck: Richard Theodore [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice].
- Brailley: Frank [Final], Bolton, Lancs.
- Breakwell: John [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice].
- Brown: Robert Smart [Passed five years' course at Robert Gordon's Colleges, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice], Aberdeen.
- Buchanan: James Wardrop [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], Brighton.
- Bunyan: James [Passed five years' course at Glasgow School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], Glasgow.
- Collmann: Leonard John [Final], Hampton-on-Thames.
- Coute: Lionel Francis Russell [Final], Gerrards Cross.
- Crabtree: William, Dip. Arch. (Liverpool) [Passed five years' course at Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], Doncaster.
- Crosby: Edmund Lionel [Final].
- Cruickshank: Alexander James [Passed five years' course at Robert Gordon's Colleges, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice], Gannochy, Perth.
- Culpin: Clifford Ewart [Final], Ilford.
- Deolalikar: Ganesh Bhikaji [Special Examination], New Delhi, India.
- Douglas: Percival Howard [Passed five years' course at Robert Gordon's Colleges, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice], Watford.
- Dow: John Sim [Passed five years' course at Robert Gordon's Colleges, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice], Craigie, Perth.
- Dunn: Richard Russell Anthony [Final], Sunderland.
- Ecclestone: James Henry [Final].
- Eden: William Arthur [Passed five years' course at Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], Stockton-on-Tees.
- Ellis: Harold George, B.Arch. (Liverpool) [Passed five years' course at Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], Wallasey, Cheshire.
- Funnegan: Leonard [Special Examination], Kenton.
- Foley: Hugh Valentine [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice].
- Forbes: Ian [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], Chalfont St. Giles.
- Fraser: James Milner [Final], Singapore.
- Garrett: Alfred John Wilton [Special Examination], Leigh-on-Sea.
- Gibb: John James Bayne [Final], Glasgow.
- Golding: Alfred [Final], South Shields.
- Greenwood: Fred [Final].
- Hall: Frederick George Alfred [Final].
- Harding: Herbert John, A.R.C.A. [Special Examination].
- Hatcher: Basil Ainsworth [Final], Ipswich.
- Helm: William Rex [Final], Oldham.
- Holt: A. Neville [Passed five years' course at the Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], West Kirby, Cheshire.
- Hough: George Cecil [Passed five years' course at the Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], Hoylake, Cheshire.
- Jenkins: Gilbert Lawrence Martin [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing the Examination in Professional Practice].
- King: William Henry [Final].
- Knight: George William [Special Examination].
- Knowles: Herbert James, Dip. Arch. (Liverpool) [Passed five years' course at the Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], Plymouth.
- Lamb: William [Final], Windsor.
- Lane: Howard Ross [Final], Christchurch.
- Lewis: Captain Harry Almond [Special Examination], Colombo, Ceylon.
- Lightfoot: Brodrick St. Clair, Dip. Arch. (Liverpool) [Passed five years' course at the Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], Cape Town.
- Lovett: William Francis Benjamin [Passed five years' course at the University of London School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice].
- Lowes: Alexander John George [Special Examination].
- Lowther: Anthony William George [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], Ashted, Surrey.
- Luibynski: Norman Francis [Final], Cape Town.
- MacDonald: Eric Alexander Hector [Final].
- Macdonald: George Sutherland [Passed five years' course at Robert Gordon's Colleges, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice], Elgin, Morayshire.
- McLaren: Ian Hastings [Passed five years' course at Robert Gordon's Colleges, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice], Cults, Aberdeenshire.
- Mansfield: John Leslie Stephen, B.Arch. (Sydney) [Passed five years' course at Sydney University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice].
- Mant: Cecil George [Final].
- Metcalf: John George [Passed five years' course at the Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], Liverpool.
- Metz: Morris de [Final].
- Mitchell: Thomas [Passed five years' course at the Glasgow School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], Broughty Ferry, Angus.
- Morgan: Brodrick John Morris [Final].
- Morris: William Alexander [Special Examination], Weaverham, Cheshire.
- Morrison: Robert James [Passed five years' course at Robert Gordon's Colleges, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice], Aberdeen.



- Mowbray: William Bowden [Final], Sutton, Surrey.  
 Napolitano: Frederick [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], St. Margarets-on-Thames.  
 Platt: Walter Geoffrey [Passed five years' course at the Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], Doncaster.  
 Poulton: Denis, Dip.Arch. (Liverpool) [Passed five years' course at the Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], Oxford.  
 Redwood: Reginald Seymour [Final], Cluppenham, Wilts.  
 Saunders: George Sleith [Final], Leeds.  
 Seammell: Rodney Quinton [Final], Birmingham.  
 Shewan: William Wyllie Clark [Passed five years' course at Robert Gordon's College, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice], Aberdeen.  
 Simpson: Robert Alison Crichton, B.A.(Cantab.) [Passed five years' joint course at the Cambridge University School of Architecture and the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], Leeds.  
 Spencely: Hugh Greville Castle, B.Arch. (Liverpool) [Passed five years' course at the Liverpool University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice].  
 Statham: Colin Walter [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], Rickmansworth.  
 Summerson: John Newenham, B.A.(Arch) [Passed five years' course at the University of London School of Architecture. Exempted from the Final Examination after passing the Examination in Professional Practice], Edinburgh.  
 Sykes: Cecil George [Final].  
 Taber: Edwin Atkinson [Final], Leeds.  
 Tamkin: Arthur Leslie [Final], Torquay.  
 Thompson: Gerald Leopold [Final].  
 Tomlinson: Harold, M.A. (Cantab.) [Special Exemption], Cambridge.  
 Turner: Charles Austin Charlewood [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], Sutton, Surrey.  
 Waller: Philip Arthur [Passed five years' course at the University of London School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], Beaconsfield, Bucks.  
 Walkden: John Stanley [Passed five years' course at Manchester University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], Manchester.  
 Waugh: David Stark Reid, Dip.Arch.(Glasgow) [Passed five years' course at Glasgow School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], Glasgow.  
 Williams: George [Final], Hull.

The Chairman announced that by a resolution of the Council the following had ceased to be members of the Royal Institute:

#### AS ASSOCIATE.

Gordon Hayer Criclamy.

#### AS LICENTIATES.

Frank Jermyn Bowhill.  
 Frank Webster Holloway.  
 William Whiteley Kenworthy.  
 Gottlieb R. C. Muschawek.

The meeting then proceeded to consider the proposal that the references to the Assessor's Fee should be omitted from the Regulations for Architectural Competitions, and that these references, contained in Clause 1 (paragraphs 1 and 2) of the Regulations should be transferred to the Scale of Professional Charges and the "Directions to Assessors."

Several members having spoken against the proposal, it was put to the vote of the meeting and lost.

The proceedings closed at 8.45 p.m.

### ARCHITECTS' BENEVOLENT SOCIETY (Insurance Department).

#### HOUSE PURCHASE SCHEME (for property in Great Britain only).

The Society is able, through the services of a leading Assurance Office, to assist an Architect (or his client) in securing the capital for the purchase of a house for his own occupation, on the following terms:—

#### AMOUNT OF LOAN.

Property value exceeding £666, but not exceeding £2,500, 75 per cent. of the value.

Property value exceeding £2,500, but not exceeding £4,500, 66⅔ per cent. of the value.

The value of the property is that certified by the Surveyor employed by the Office.

#### RATE OF INTEREST, 5½ per cent. gross

#### REPAYMENT.

By means of an Endowment Assurance which discharges the loan at the end of 15 or 20 years, or at the earlier death of the borrower.

#### SPECIAL CONCESSION TO ARCHITECTS.

In the case of houses in course of erection, it has been arranged that, provided the Plan and Specification have been approved by the Surveyor acting for the Office, and the amount of the loan agreed upon, and subject to the house being completed in accordance therewith, ONE HALF of the loan will be advanced on a certificate from the Office's Surveyor that the walls of the house are erected and the roof on and covered in.

NOTE.—In 1928, over £20,000 was loaned to architects under this scheme, and as a result over £100 was handed to the Benevolent Fund.

If a quotation is required, kindly send details of your age next birthday, approximate value of house and its exact situation, to the Secretary Architects' Benevolent Society, 9 Conduit Street, London, W.

Members sending remittances by postal order for subscriptions or Institute publications are warned of the necessity of complying with Post Office Regulations with regard to this method of payment. Postal orders should be made payable to the Secretary R.I.B.A., and crossed.

It is desired to point out that the opinions of writers of articles and letters which appear in the R.I.B.A. JOURNAL must be taken as the individual opinions of their authors and not as representative expression of the Institute.

#### R.I.B.A. JOURNAL.

DATES OF PUBLICATION.—1929: 21 December; 1930:—11, 25 January; 8, 22 February; 8, 22 March; 12, 26 April; 10, 24 May; 7, 21 June; 12 July; 9 August; 20 September; 18 October.



# Journal of the Royal Institute of British Architects

THIRD SERIES

VOL. XXXVII No. 4

21 DECEMBER 1929

## Contents for 21 December 1929

	Page
ORIGINAL WATER COLOUR SKETCH. By George Devey (1829-1886) .. .. .	<i>Frontispiece</i>
RECENT CRITICISM OF ROMAN ARCHITECTURE. By Dr. Thomas Ashby, D.Litt., F.S.A., F.B.A., Hon. A.R.I.B.A. ..	123
JEAN MARIETTE'S ENGRAVINGS. By Martin S. Briggs [F.] .. .. .	124
THE LIBRARY .. .. .	126
HISTORICAL ARCHITECTURE AND ANCIENT BUILDINGS. By Fredk. R. Horn, F.S.A. [F.] .. .. .	127
NOTES ON SOME RECENT FOREIGN PERIODICALS. By Gerhene B. Tubbs [F.] .. .. .	129
CORRESPONDENCE :	
JAUFRED AND GABRIEL O. SUNLIGHT. By Percy J. Waldram [L.] .. .. .	130
THE PROPOSED CHARGING CROSS BRIDGE :	
Sir Basilist Fletcher, F.S.A., President ; Lord Esler ; Sir Reginald Blomfield, R.A. ; Sir Percy Simmons ;	
H. V. Lanchester [F.] ; Professor S. D. Adishead [F.] .. .. .	131
NATIONAL ASSOCIATION FOR THE PREVENTION OF TUBERCULOSIS : Report by T. R. Milburn [F.] .. .. .	133
LONDON BUILDING ACTS COMMITTEE : L.C.C. Regulations .. .. .	134
ALLIED SOCIETIES :	
ESSEX, CAMBRIDGE AND HERES SOCIETY OF ARCHITECTS .. .. .	136
SOUTH WALES INSTITUTE OF ARCHITECTS .. .. .	136
WEST YORKSHIRE SOCIETY OF ARCHITECTS .. .. .	136
BEAUTIFYING OUR ROADS .. .. .	137
ELECTION OF STUDENTS R.I.B.A. .. .. .	137
NOTICES .. .. .	138
COMPETITIONS .. .. .	139
MEMBERS' COLUMN .. .. .	140
MINUTES .. .. .	140





FROM AN ORIGINAL WATER-COLOUR SKETCH  
By George Devey 1820-1886 (F.R.I.B.A. 1856-1886)

R.I.B.A. Collection





INTERIOR OF COLOSSEUM

## Recent Criticism of Roman Architecture

BY DR. THOMAS ASHBY, D.LITT., F.S.A., F.B.A., HON. A.R.I.B.A.

THIS book,\* as its author explains in the preface, is an enlarged version of his chapter on *Building and Engineering in The Legacy of Rome* (Oxford, 1923). A hundred and twenty illustrations have been added and will be found to be extremely useful, especially as a number of them are from the author's own drawings of out-of-the-way monuments in Rome and other parts of Italy. It is written largely for students of modern architecture, and the author has not therefore time to discuss the many and various problems which it raises. But it is well that he begins by pointing out that Vitruvius goes back in the main to previous treatises on the subject belonging to the Alexandrine period, and is therefore not a good guide for the sphere of construction and architecture which was in process of formation in his own day.† He wisely insists on its

utilitarian character and on the importance of the development of arches and vaults, which came to its highest point in the third and fourth centuries after Christ, when Roman art, according to the prevailing view, was in a state of decadence. It was the use of concrete which rendered such constructions possible: this had begun to be employed on a large scale towards the end of the Republic. Almost equally important, according to him, were the relieving arches, of which we find such large use made in brick facing, though he does not add that their function must have ceased almost entirely when the concrete was set hard.

The organic planning of such buildings was of special importance, and there was a gradual evolution. The walls were at first very massive, but as time went on means were found to reduce them. In certain

\* *La Tecnica della Costruzione presso i Romani*. By Gustavo Giovannoni. Rome: Società editrice d'arte illustrata, n.d.

† Thus the typical brick of which he speaks as a foot wide and a foot and half long was a sun-dried brick, as has already been pointed out (Rivoira, *Roman Architecture*, 3, 17).



details I cannot altogether agree with him—thus, in regard to the thickness of Roman bricks (p. 24), where he is mistaken in throwing overboard Dr. Van Deman's classification, and in stating that "it is sufficient to say that the walls of the first century generally had thin bricks (2 to 3 cm.) . . . that in the succeeding centuries they went on increasing in thickness, until they reached about 5 cm. in the Baths of Diocletian and the Basilica of Maxentius (Constantine)." Here, to say no more, he has altogether omitted the period of Septimius Severus. Nor am I able to agree with him as to the usual measurements of bricks in the fourth century monuments which he cites.† Nor is *reticulatum* almost always enclosed with panels of bricks—until after the time of Augustus the quoins are invariably of stone.

Nor is he right in laying such stress on the large hall of the Baths of Agrippa (p. 81), which, as Hälsén has already pointed out, appears, unfortunately, to be a creation of Palladio's fertile brain. On the other hand, I am grateful to him for pointing out (p. 35) the importance from an architectural point of view of a tomb near S. Stefano Rotondo, only preserved to us in a drawing in the Topham collection at Eton.‡ Like the *Sedia del Diavolo*, it is an example of a "volta a vela" (or vault with depressed pendentives) on a square plan. And it is also quite likely that he is right in maintaining (p. 40) that the tile ribs of which Choisy makes so much (which are not solid brick ribs, but box ribs) were not built before the rest of the vault, and were merely intended to direct the thrust of the vault in certain directions§; and also that the Romans relied too much on the theoretical absence of thrust in their vaults, and sometimes increased their buttresses, external niches, etc., to an exaggerated extent, instead of modifying the structure of the vaults themselves.

He, naturally and rightly, takes up a strong position against the "Oriental" theory of the origins of Byzantine architecture.

He is no doubt also right in assigning (70 *et seq.*) considerable importance to wooden roofs, our knowledge

of which is limited, being mainly derived from their use in Christian basilicas; they were, however, concealed by coffered ceilings even in ancient times, and fragments of such a ceiling in painted plaster have been found in the great basilica at Aquileia.

The development of central structures, whether circular, cruciform, square or polygonal, is also of great importance. As our author points out (82 n. 1) they had a great interest for the architects of the Renaissance, and numerous plans of them are preserved in their drawings, which require careful examination; for, more often than is believed, the buildings represented in them are actually preserved; and Montano, for example, is not, any more than Ligorio, either entirely veracious or exclusively inventive.\*

As to the facing which the concrete walls received, whether of plaster, stucco, or marble, he makes an interesting remark when he says that the bare walls of Hadrian's villa or Sette Bassi present, from the constructional point of view, a more organic whole than they did when they were covered with a rich decoration which had no direct connection with their structure.

We thus have an extremely valuable though short summary of the technique of Roman construction, which makes us hope that the author may soon find time to deal with the subject on a larger scale.

Another recent work, by a pupil of Giovannoni's, is of a somewhat different character.† Though it bears the promising title *Roman Engineering*, the first hundred of the 320 pages which it contains discuss the regal period and a variety of other topics.‡ The author then proceeds to deal with "megalthic or pre-Roman construction"§—giving a number of interesting illustrations, but without always telling us what they represent||; while what he calls the "walls of Romulus" on the Palatine are not part of the fortifications at all¶, and their date must be treated as uncertain. When at last he comes to treat of Imperial construction, he has some useful remarks—though it is a pity that he gives\* what are, I think, the foundations of a part of the Domus Aurea of Nero on the Palatine

† In the temple of Venus and Rome, as restored by Maxentius, 102 bricks showed a variation from 2.1 to 3 cm., but the vast majority were between 3 and 4 cm.

‡ *P.B.S.R.*, vii, pl. 1.

§ Rivoira, *op. cit.*, 152.

|| Some of Cozzo's photographs (Figs. 93-96) will be found useful in this connection. He follows Giovannoni in his interpretation of their use.

¶ Contrast Anderson Spiers and Ashby *Architecture of Ancient Rome*, 38.

\* For a case where he has represented an actually existing building see *Mem. Pont. Acc. Arch.*, ii (1928), 167.

† G. Cozzo, *Ingegneria Romana* (Rome, 1928).

‡ We may note that the remains of the earliest city wall on

the Palatine are described as built of peperino, and not of capellaccio—two very different kinds of volcanic stone.

§ In regard to his dating it may suffice to say that he suggests that the progress from "cyclopean" to "polygonal" making may correspond with the beginning of the Iron Age (Archæology is, in fact, not his strong point, and his Latin is lamentable).

|| I may add that "a gate in the walls of Segni" (Fig. 86) is in reality the Porta Saracinesca at Ferentino (*Rom. Mitt.*, 1908, p. 23, Fig. 12).

¶ The illustration is practically identical with Fig. 42 in Lugli's *Zona Archeologica di Roma* (omitted in the English edition).

\* 166, Fig. 67 (contrast Lugli, *Classical Monuments of Rome*, i, p. 283, Fig. 69).





PLATE 1.—BATHS OF CARACALLA  
Brickwork in Vault

as "examples of concrete foundation walls constructed within the earth and then left isolated, as in the substructions of the palace of Tiberius."

He also points out, successfully I think, that in some Imperial buildings, for example the Baths of Caracalla (Plate 1), the vaults were not, as Choisy postulates, always lined with a double layer of tiles, the inner large (*bipedales*), the other small, but that small tiles were exclusively used.

He misinterprets (p. 185) the small holes in brick facing in which pieces of brick or marble were placed; they were not intended to give a better hold to the cement facing, but to give a bite to the nails which supported the marble facing.

The last three chapters of the book are devoted to the Colosseum, the Pantheon, and the emissarium of the Fucine lake. In dealing with the Colosseum,\* he supposes that the pillars of the ambulatory of the

ground floor rest upon another buried order of arches; but his arguments are not convincing. Nor is he right in maintaining that the skeleton framework in travertine, with the brick arches connecting the piers, was constructed first, and that this arrangement made it possible for work to go on contemporaneously at a number of points. The brick arches are relieving arches, and form an integral part of the rest of the brick walls between the travertine piers; so that the use of travertine in the interior must be taken to be merely a question of using the strongest material at the points of greatest strain † (Plate 2).

Nor will his system of scaffolding for the erection of the top storey, conceived as projecting through the windows, stand the test of investigation: for the windows only occur over every other arch, whereas the corbels which he supposes to have supported this scaffolding are far more frequent, and originally



PLATE 2.—THE COLOSSEUM  
Difference of Travertine Work from Tufa and Brickwork

\* The greater part of this section is a repetition of a previous article (*Architettura ed Arti Decorative*, 1923, 237, et seq.).

† Anderson, Spiers and Ashby, *op. cit.* 94; see Von Gerkan in *Römische Mitteilungen*, 1925, 20.



occurred on every pier.<sup>†</sup> Nor has he noticed the traces of fire in the third storey: so that he is led to explain the differences of construction which Von Gerkan points out<sup>‡</sup> by supposing that two different gangs of workmen were constructing these two different sections from the beginning; while he supposes that the fourth storey, even as it stands, is part of the original construction, and therefore that the fragments used in it come from the Golden House, and from the refuse of the building of the amphitheatre itself.

In regard to the Pantheon,<sup>||</sup> he subjects the valuable report of Beltrami<sup>¶</sup> to a detailed examination. He believes (p. 268) that the circular wall which was found to be concentric with the rotunda in 1893 was intended to protect the concrete foundations against floods; but this wall is only 0.60 cm. thick, and this idea would not account for the earlier marble pavements which were found below the present one.\*

But his theory that the Pantheon as it stands is the original building of Agrippa, and that the domed room known as the Arco della Ciambella is the laconicum built by him (which really dates from the third century A.D.<sup>‡</sup>) betrays an ignorance of the whole progress of brick facing, which is inexcusable; and he handles the evidence of the brick-stamps in a thoroughly unjustifiable manner. "How," he asks, "can those seven bricks with stamps of the second century . . . prove that the temple was built by Hadrian in open conflict with the tradition, in face of the enormous number (many millions) of which the brick mass of the monument is composed? . . . an older building may have been largely repaired with more recent material, and therefore have its date brought down nearer to our own time, which is exactly what has happened up till now with the Pantheon" (pp. 294, 295).

In order to prove his point, Signor Cozzo must be able to show precisely what these restorations in the brick-facing are, and where they begin and end, which he will, no doubt, have an opportunity of doing in his further studies of the dome. But until he does so, I prefer myself to rely on the statement of Lanciani:<sup>‡</sup> "Since those *tegulae bipedales* are dated, as a rule, holes were bored into them in about fifty places, and as many brick-stamps were found (he is referring to Chedanne's still unpublished investigations) some on the outside

facing, others in the thickness of the wall, in the foundations, in the dome, in the staircases, in the arches and vaults—in short, wherever the search was made. . . . The dates vary from A.D. 115 to 125." Or if this is not sufficient, Beltrami's statement, corroborated by Hülsen,<sup>§</sup> that the seven stamped bricks of which he speaks were taken from undoubtedly original parts of the structure (five out of seven of them, be it noted, from relieving arches—has Signor Cozzo found any traces of subsequent repairs in them?), may be brought in as further testimony, not to mention the fact that neither then nor previously (for Hülsen enumerates twelve more stamps, recorded in Vol. XV. of the *Corpus Inscriptionum Latinarum*, that had already been found in the rotunda, and three more from the porch) has any brick-stamp belonging to any period other than that of Hadrian been found in the main building. Hülsen indeed summarises the position as follows: "It was reserved for the detailed investigations of Dell, Chedanne and Armanini to show, that everywhere, and precisely in those parts which are constructionally important, and therefore afford absolute proof for the date of the creation of the building, bricks with stamps of the time of Hadrian are found."<sup>¶</sup>

A similar ignorance of recent research is shown by the fact that he reproduces Lanciani's plan of the Baths of Agrippa, without realising that Hülsen demonstrated nineteen years ago that their orientation had to be altered to the extent of ninety degrees.\* With these considerations in our minds, we can hardly accept his further theory that the original entrance to the Pantheon was from the south through the wall immediately at the back of it; following an idea entertained at the time by Lanciani, but subsequently rejected by him (*Not. Scavi*, 1882, 357). The latter thinks, by the way, that the hall was vaulted at a later time, and that the niche was then inserted. There is, however, no solution of continuity in the brick facing at each side of the niche, so that it cannot, as he thinks, have been filled up later.

In a subsequent article,<sup>‡</sup> as the result of fresh investigations both in the foundations and the superstructure, he discusses the relations between the portico, the porch and the rotunda. Owing to the continuity of the lateral architrave, he comes to the conclusion<sup>§</sup> that the first two are contemporary, but that the

<sup>†</sup> † See Von Gerkan in *Römische Mitteilungen* 1925, 25. They have only been removed in a few cases, and were left for convenience in subsequent repairs.

<sup>‡</sup> *Ibid.*, 24, 32.

<sup>||</sup> See *Times*, Monday, 1 April 1929, p. 9.

<sup>¶</sup> *Il Pantheon*, Milan, 1898.

<sup>\*</sup> *Op. cit.* 37-40, 64: cf. *Il Pantheon rivendicato ad Adriano* (1929), 62 and Pl. XVI.

<sup>‡</sup> Rivoira, *Roman Architecture*, p. 128 and Fig. 142.

<sup>§</sup> *Op. cit.* 480.

<sup>¶</sup> *Röm. Mitt.* 1892, 312; cf. Jordan, *Topographie*, i-3, 387.

<sup>‡</sup> Cf. Beltrami, *Il Pantheon* (1929), 31.

<sup>\*</sup> Guillaume, *Rev. des deux Mondes*, 1892.

<sup>\*</sup> *Die Thermen des Agrippa*, Beltrami (Rome, 1910-29), 78, does not know Hülsen's work either.

<sup>‡</sup> Often called the Laconicum, though wrongly. Beltrami (p. 62) in his original work entertained the idea, but in the later one he most decidedly rejects it. If it ever existed, even in embryo, it must have been almost immediately abandoned, as Bagmati has suggested.

<sup>§</sup> *Bollettino d'Arte*, Ser. 2, viii. (1928-9), 201 et seq., with inadequate drawings.

<sup>¶</sup> He has here completely changed the opinions expressed in the *Ingegneria Romana*.



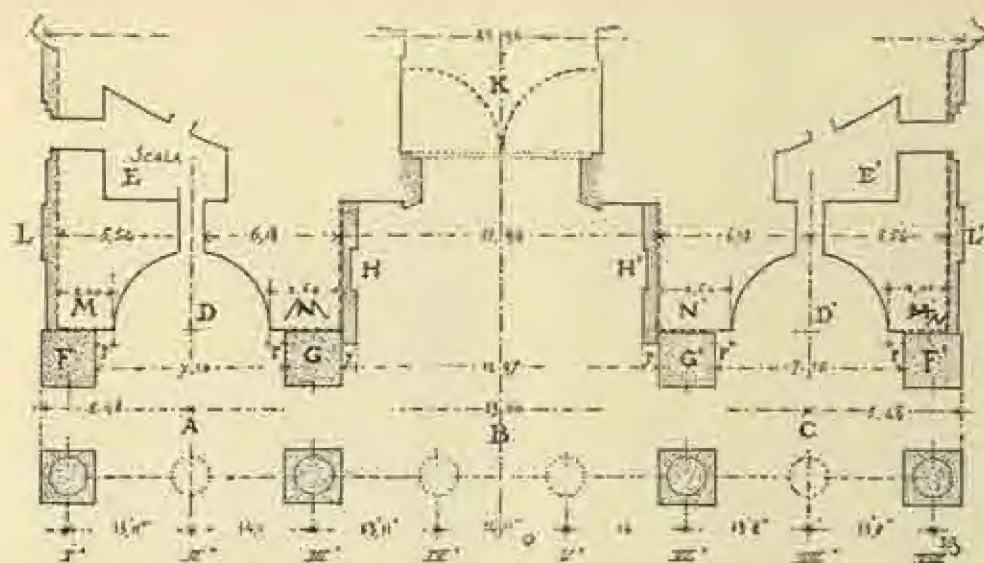


PLATE 2A.—THE PANTHEON: SHOWING THE RELATION BETWEEN THE PORCH AND THE PORTICO



PLATE 3.—THE PANTHERON. SIDE ELEVATION SHOWING PRESENT ENTRANCE



rotunda is earlier still,\* though he abstains in this article from giving any absolute dating† (Plate 2a). On the other hand, as in his book, he still maintains that the original entrance was on the south, the hall on that side serving as the vestibule, and that it was closed up, and a new one made on the north side, when the formation of large cracks caused serious fears for the stability of the building (Plate 3).

The rectangular foundation discovered on the north, under the present portico, which was interpreted as having belonged to the original Pantheon of Agrippa, which faced south instead of north, was, according to his later explanation,‡ the first stage of the change of the position of the entrance. Thus the intention would have been to re-erect the vestibule (the word atrium, of which he makes use, is inappropriate) according to the original plan; and it was only when it was found necessary to secure the stability of the building on the north side also that this foundation was, we may say, not brought into effective use, other and more solid foundations being constructed instead.

In the meantime, Beltrami wrote a strongly polemical treatise against Cozzo's first work (though without knowledge, apparently, of his subsequent article),§ maintaining successfully the Hadrianic date of the whole structure; while the enormous crack which is said to have caused the change in the orientation of the entrance is rather due to settlement, and, in the report of Prof. Giovannoni, summarised in the *Times* of Oct. 7, is not made out to be a great danger to the structure. He reaffirms, and rightly, the existence of the original rectangular temple under the present portico.

We must admit that Beltrami is right in pointing out (1) that Cozzo is not by any means the first person who saw the cracks between the porch and the rotunda (p. 60), but, as Fea saw, the wall of the porch could not join that of the rotunda because of the great relieving arches of the latter (Plate 3a); (2) that if one supposes that the rotunda was built without any intention of adding the porch, there is no way of getting to the upper part (p. 59): whereas the steps are so organically connected with the whole structures that it is difficult, if not impossible, not to consider them as original.

\* In this he differs from Colini and Gismondi (*Bull. Com. liv.* (1926) 67-72); but even if he is right, as he seems to be, the question is only one of days.

† At the end, however, he hazards the suggestion that the fragment of the *Forma Urbis*, which shows a space between the Pantheon and the Baths of Agrippa, may prove that the change of the position of the entrance occurred after the reign of Septimius Severus. One might legitimately ask whether he seriously supposes that the brickwork of the central niche of the hall on the south end of the porch can possibly belong to the reign of that emperor.

‡ In his original book he had not been able to give any proper explanation of its existence (*cf.* p. 197; figs. 209, 211, which are most unsatisfactory in regard to this point).

§ *Il Pantheon rivendicato ad Adriano* (Milan, 1929).

On the other hand, the fact that the cornice at the back of the Pantheon runs straight for several metres,



PLATE 3A.—WALL OF PANTHEON: FROM PORCH





PLATE 4—THE PANTHEON: SOUTH SIDE

no longer following the curve of the rotunda, and the existence of massive attachments of the rotunda to the laconicum (p. 87), do seem to require explanations (Plate 4) which they have not hitherto received in full, even in Beltrami's work.

Whether the relieving arches of the drum were actually constructed before the rest of the wall in which they may now be seen, is, in my opinion, as in the case of the similar arches in the Colosseum, to be treated as a matter of improbability.\*

On the main question Rivoira is certainly right in saying that before the time of Hadrian Roman architects would not have been up to the task of constructing such a building as the Pantheon; and Beltrami is equally right in deploring that we cannot yet date its Corinthian orders as such with certainty.

Another new point made by Beltrami (p. 69) is of considerable importance as showing definitely that the portico and the porch are, if not absolutely contemporary, at any rate a part of a single conception. He points out that the side walls of the two niches, which are of brick-faced concrete, are 64 cm. thicker on the inner sides towards the door than on the exterior, the difference being accounted for by the thickness of the marble facing of the exterior of the porch; whereas, if there had not been intended to be a portico, it is the outer side walls of these niches that would have been thicker (Plate 5).

\* Cf. also Beltrami, 89.



PLATE 5—THE PANTHEON: WEST SIDE OF PORCH



As a fact, the indications of a sixteenth-century drawing in the Uffizi at Florence (No. 78), reproduced by Beltrami (p. 12, tav. III), though incorrect in detail, give us the general principle correctly. Above the upper series of relieving arches, he notes "tegole" (i.e., courses of tiles laid horizontally), 4 braccia (2.35 m. apart). And recent investigations have shown that, as Beltrami suggested (p. 22) the upper part of the dome is built in horizontal courses inclined towards the interior, of pieces of stone some 20 cm. in length.

of relieving arches immediately above the attic in the interior† and that it, too, is divided into forty equal parts by sixteen buttresses, which run right through the wall of the rotunda, and twenty-four radial walls which are interrupted by the chambers in the thickness of the wall. Of these chambers there are sixteen, eight of them semicircular, each divided in half by one of these radial walls, and eight of them annular, divided into three parts by two similar walls,‡ and these chambers correspond with the smaller and larger relieving arches respectively (Plate 6). Each chamber has a door

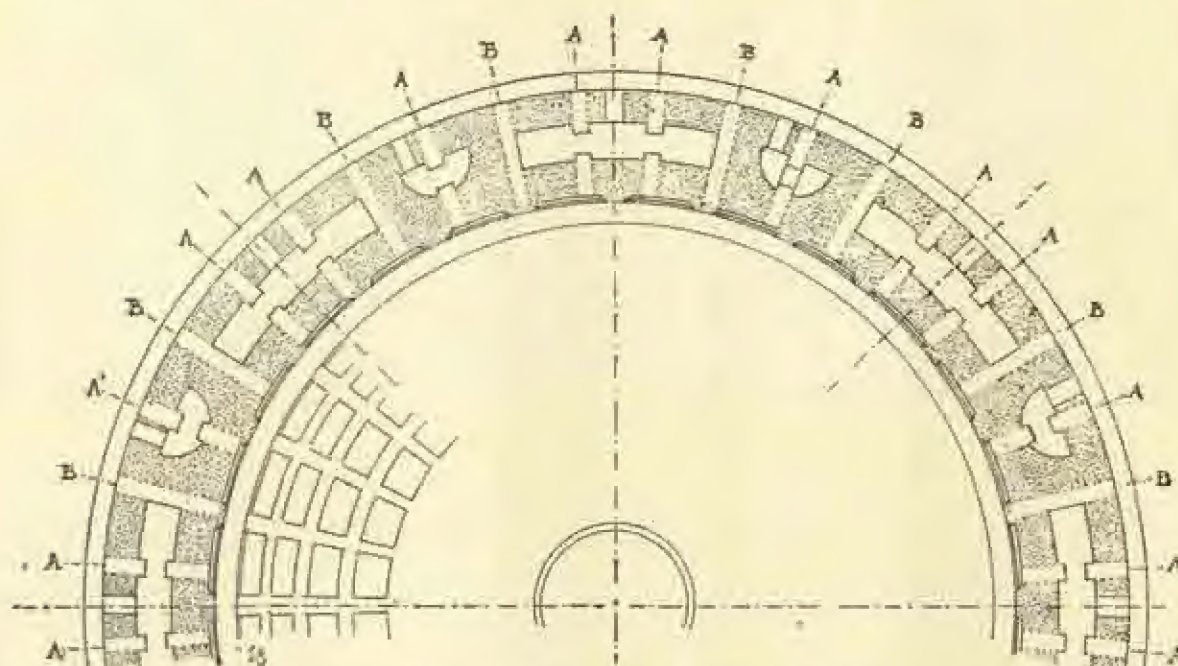


PLATE 6.—THE PANTHEON: PLAN AT SPRINGING OF DOME

An important fact which Beltrami has brought to light\* is this—though, as he says, it might have been deduced by others, inasmuch as it is shown by Desgodetz, Piranesi and Armanini—that the thickness of the wall of the rotunda can be divided radially into forty equal parts, corresponding to the intercolumnation of the Corinthian columns of the interior (3.44 m., while the external length of these sectors is 4.40 m.). And if we go up to the uppermost (third) external zone of the drum, between the second and third cornices, we find that it corresponds in level (more or less) with the series

\* Cf. Beltrami, 80, pp. 32 *et seq.*

† It is a pity that the position of these internal arches has not been shown in dotted lines, even approximately, in the upper part of Plate VI (p. 36).

leading into it from the second external cornice, and is accessible in no other way. This consideration proves that Cozzo is wrong in placing the impost of the dome above the extrados of the relieving arches which are seen in the interior, so that the roof is not a hemispherical vault, as it appears to be, but a mere basin (*calotta*) (the existence of connecting arches between the larger arches, supposed by Piranesi, is, as a fact, very doubtful)—a supposition which further involves a serious geometrical error (Plate 7). He is also in error in denying the statical importance of the columns of the interior,

‡ There are radiating walls corresponding to these in the next belt below, between the first and second external cornice (cf. Plate XI, fig. 46)—but not, apparently, to those in the semicircular chambers, nor to the buttresses.



upon which the radiating walls of both belts do, as a fact, rest.

If we are to insist on accuracy in details, we must add

that the illustration reproduced on p. 91 is taken indirectly from the book of Alò Giovannoli, which was published, not in the time of Charles V, but in 1615.

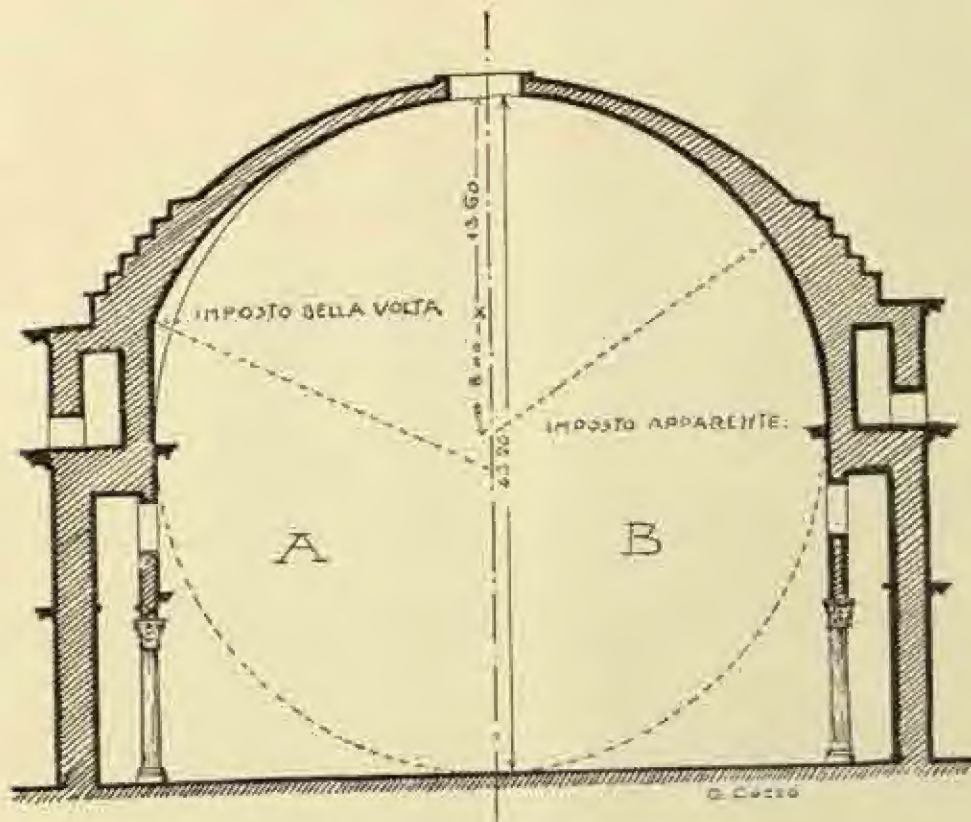


PLATE 7—THE PANTHEON: CROSS SECTION





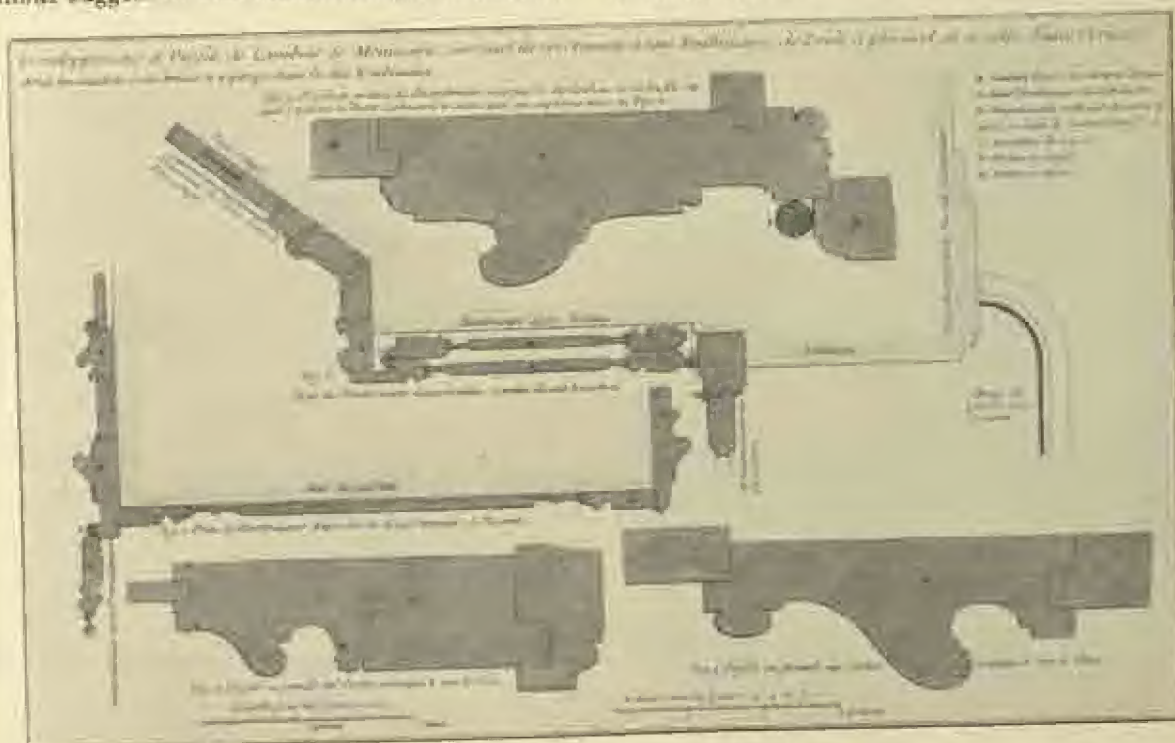


in the next century by Marot. Jean Mariette conceived the idea of a collection on much more ambitious lines.

In 1727 he published the first volume of the three that have just been reprinted, and the two others appeared shortly afterwards. They all bore the date 1727, which is somewhat difficult to reconcile with the fact that some of the buildings illustrated (e.g., the Hôtel Janvy) were certainly not completed till 1732. Professor Louis Hauteœur of the Ecole des Beaux Arts, who introduces and edits the reprint, makes the ingenious suggestion that Mariette simply re-used his

and 127. The edition at the Bibliothèque Nationale has two copies of No. 63.

My investigations in London libraries show that there is no copy of the 1727 edition at the British Museum or at the Soane Museum, and that our own copy in the R.I.B.A. Library is by far the most complete. But it is bound in two volumes instead of three, and contains only 501 plates instead of 562. Hence the collating of the old edition with the reprint becomes very difficult, and the following facts should be accepted with reserve. So far as I can ascertain, our



DETAILS OF WOODWORK FROM A DOORWAY

From the original edition of Mariette, *L'Architecture française*, 1727

dated title page regardless of the actual date of publication, in order to save expense in alteration!

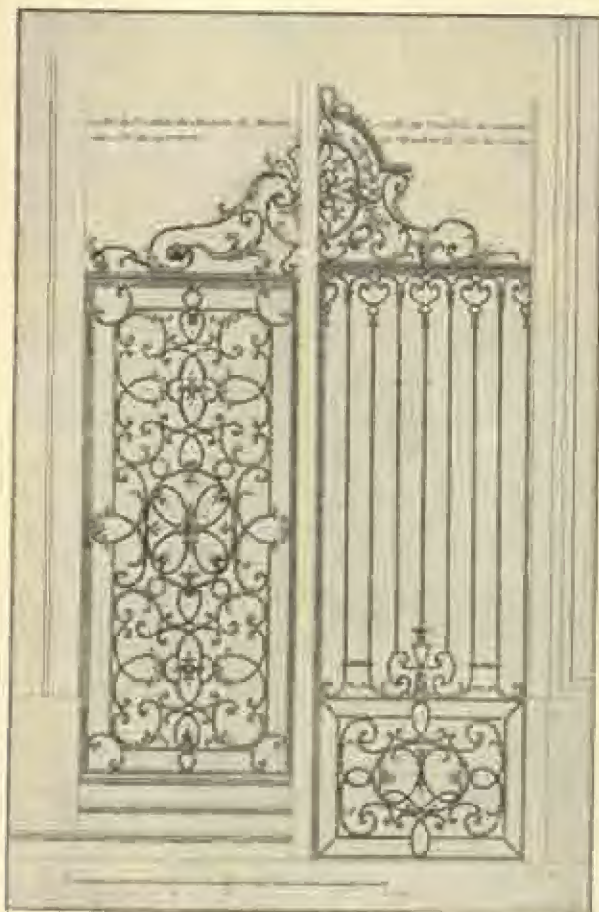
The whole collection comprises 562 engravings, some of which are double or folding plates. The work is a puzzle to a bibliographer, for in its original form it contained no index and the plates were not numbered. Sometimes they were bound in two volumes, sometimes in three, sometimes not at all. Thus it happens that even Paris appears to lack a perfect copy; at least so it would seem from the Introduction, where the editor is not quite definite about the copy at the Bibliothèque Nationale. The copy at the Ecole des Beaux Arts, from which many of his reproductions have evidently been made, is short of the plates numbered 1, 2, 3

old copy lacks four early churches (numbered 4, 11, 12, 13 in the reprint), the Hôtel Rouillé (119-121), the Hôtel Chaulnes (171-5), the Hôtel Desmarest (190-1), and, unfortunately, 43 plates of the beautiful details of decoration and ironwork that constitute perhaps the most attractive part of the collection. The third volume at the R.I.B.A., uniform with these two, and entitled in pencil as "Vol. IV," is in fact Mariette's edition of *Le Grand Marot* (see below), but one of the title pages of *L'architecture française* (1727) has been added to it in error by the binder.

At the Victoria and Albert Museum Library there are two copies of the book, both incomplete. One was bequeathed by Lady Dilke several years ago, and is in



two volumes. The other is also in two volumes, which closely correspond to Volumes I and II of



GATE AT THE CHÂTEAU DE MEUDON  
From the original edition of Mariette, *L'Architecture française*, 1727

1727, and contain 354 engravings as against 362 in the original edition.

It must be added that Mariette published in 1738 another volume of engravings of larger size, which included the Sorbonne, the Louvre, the Collège des Quatre Nations, and the châteaux of Versailles, Clagny, Marly, Meudon, Chantilly, Maisons, Bagnolet and Sceaux. There are copies of this volume in the Victoria and Albert Museum (82 plates) and the R.I.B.A. Library (76 plates). Lastly Mariette published *Le Grand Marot* (and the publishers of the 1727 reprint announce that, if it proves to be a success, they will reproduce the 1738 volume and *Le Grand Marot* too). When Jean Mariette's son, Jean-Pierre, gave up business in 1752, the publisher Janbot acquired all his

plates, and employed Jean-François Blondel to edit them. They subsequently appeared in three folio volumes in 1752-56. Thus it is that our own Library and others contain a most baffling series of volumes of Mariette's engravings, and that fact makes the appearance of the new edition all the more welcome, for in it all the plates are numbered, there is an index, and also alphabetical lists of the architects and buildings represented in the collection.

But apart from its rarity, this series of prints is of high artistic merit and interest. The engravings vary in quality, for they are the work of many hands. Most of them bear Mariette's own name, but among his coadjutors were Pierre le Pautre, Hérissset, Chevetot, and François Blondel. They include a great number of elevations, plans and sections of the principal town-houses of the period (seventeenth and early eighteenth centuries); similar but less numerous illustrations of *châteaux* and country houses, with some delightful lay-out plans of gardens; and a number of Jesuit and other churches built in Paris early in the seventeenth century. The third volume also contains a large number of detail drawings of altars, ceilings, panelling and iron-work, including some very interesting sections of panelling and mouldings, a feature seldom found in books of the kind. The last three plates (560-562) illustrate the remarkable "Machines" at Marly.

Nearly all the chief architects of the period are represented in the collection, especially the two Mansarts, L'Assurance, De Cotte, Blondel and Cartaud. The study of historical architecture is said to be on the wane to-day, and it is rumoured that the Orders are going into cold storage. But even the most confirmed modernist could find both pleasure and profit in a study of the skillful and noble planning of the Paris *hôtels* and of the provincial *châteaux* illustrated in these three sumptuous portfolios.

## The Library

NOTES BY MEMBERS OF THE LITERATURE COMMITTEE ON  
RECENT PURCHASES

[These Notes are published without prejudice to a further and more detailed criticism.]

LICHTSPIELTHEATERHAUSEN. By Fritz Wilms.  
22ms—39 pp. 40. Berlin [1929]. [F. E. Hubsch Verlag.]  
10s. 6d.

This book gives drawings and photographs of some sixteen German cinemas, by Herr Fritz Wilms, ranging in size from the two large Mercedes Palast theatres in Berlin to quite small ones like the Cinema Café in the Vaterland Building.

Several deviations from English practice may be noted. Except in one or two instances galleries are omitted and all seats are on one level; this causes the difficulty, in large halls, of making an excessive "throw" for the beam of the projector if the instrument is placed at the back of the hall; to obviate this the projection booth is put in the centre of the ceiling and worked in as a feature of the decorations, in conjunction with the lighting scheme. Another difference is the more usual use of "loges" or boxes along the back wall of the auditorium.

G. B. T.



# "Historical" Architecture and Ancient Buildings

BY FREDK. R. HIORNS, F.S.A. [F.].

"There are two duties respecting national architecture whose importance it is impossible to over-rate: the first to render the architecture of the day historical; and the second to preserve, as the most precious of inheritances, that of past ages."—*John Ruskin.*

*On (for convenience sake) enlarging or altering old buildings.* . . . "A new building can be built exactly fitted for the uses it is needed for, with such art about it as our own days can furnish; while the old monument is left to tell its tale of change and progress, to hold out example and warning to us in the practice of the Arts; and thus the convenience of the public, the progress of modern art, and the cause of education, are all furthered at once."—*William Morris.*

**A**MID the confusion and disorder attaching to much of the life of to-day, one aspect of that unfortunate condition is clearly expressed in the desecration of towns and countryside by unsuitable building, and further emphasized by the grosser obtrusions of commercialism and advertisement. These signs and symptoms are, indeed, essentially expressive of the age—just as the blatant ugliness of certain recent forms of painting and sculpture (so-called) testify to our tendency to accept unnatural eccentricity, and the puerilities of ignorance, as substitutes for the merit that proceeds from talent and knowledge seriously applied to creative work. Yet, even so recently as a century ago, such distractions, in a generally harmonious condition of life, can be claimed to have been unknown; and the building and other practical arts to have been developed on lines that showed no obvious lack of accord with natural beauty or the valued cultural associations of polite life. To go backward from that time to the Middle Ages might well have revealed an increasingly satisfactory condition of harmony between the works of man and nature—just as it would have also emphasized a greater general variety, executive skill and interest in craftsmanship. In contrast with this are the technical fallacies and cheap vulgarities of to-day, that cast a blight upon the setting of life, once pleasant to look upon. It would, indeed, be the merest pretence to claim that—despite a leaven of admirable work that continues—the place of architecture in civilisation had done other than lose ground in the last hundred years; and notably so through the extensive removal, or virtual destruction by change, of precious survivals of ancient building. It was only forty years ago that William Morris felt justified in saying that the previous half century had, by improper restorations alone, been responsible for more damage than "the preceding three centuries of revolutionary violence, greed, and pedantic contempt." With other losses by removal since Morris's day and the continued, if lessened, restoration zeal of the intervening period, our mediæval and Renaissance structures—with all they show us of the instinct for beauty embodied in the traditional methods and high technical skill of native craftsmen—have become less still; so that complete unspoilt examples of building, in an equally unspoilt environment, are becoming increasingly and deplorably rare. We are not only to be denied the

material expression of history, but the most potent of educative, æsthetic, influences.

Though half a century has passed since the depredations affecting old buildings, in the preceding fifty years, aroused action for their protection, it must be confessed that there still remains much uncertainty both as to the principles and correct executive practice governing conservation work. While a vast difference is apparent in the general outlook on this question, avoidable destruction and wrongly-treated "restorations" continue, though with this difference: that it can be said, with an approach to truth, that such misdeeds result to-day from a continued lack of clear appreciation of what has—in the changed circumstances—become a specialist branch of knowledge, rather than through either weakness in general building competence or the desire to do other than the right thing. In fact, conscious vandalism applied to our remaining ancient structures may now, surely, be regarded as almost impossible. For these broad reasons a book upon conservation work—or, more particularly, its detailed executive treatment—arrives most opportunely,\* and its authorship, under the hand of Mr. A. R. Powys, Secretary of the Society for the Protection of Ancient Buildings, marks it as entitled to serious attention. To those, indeed, who know the immensely valuable work carried on by "Anti-Serape," in the course of the half a century that has passed since its foundation by William Morris, John Ruskin, and others; who are aware of its scrupulous regard for the essential value of old structures and the importance of their preservation, as far as possible, unaltered; and who realise the patient accumulation of data and records bearing on technical methods by which conservation is best achieved, that Society has come to be looked upon as the highest authority on traditional building processes in this country, and—may we not say—the model of its kind in Europe. The subject with which Mr. Powys deals, however, has been, up till now, so little systematized and defined, that even a first attempt to formulate what may be regarded as a manual for the guidance of those seeking to give protection and continued life to the structural art of bygone ages can be justly held to be an event of importance. It is, therefore, unfortunate that, at the outset, we have to regret the author's rather strict limitation of his subject to methods of repair—avoiding, it would seem, any but the scantiest and, as it were, accidental, reference to the important basic principles applying to his subject, of which the detailed executive methods are, or should be, the expression. Even the attempted definition of the object of repair work (in Preface) seems obscure and questionable: "to preserve and give renewed life to fine and old buildings that have been neglected or are decaying, and in so doing to avoid making reproductions to take the place of damaged features or missing parts when this involves the destruction and not the protection of what remains of the original work." The italics

\* *Repair of Ancient Buildings*, by A. R. Powys, Secretary of the Society for the Protection of Ancient Buildings. 8vo. Lond., 1929. [J. M. Dent and Sons, Ltd.]



are ours. But may we not wonder at such an unexpected qualification, in apparent conflict with the author's other comments on p. 182, and certainly in opposition to Ruskin's dictum that attempts at copying old work decayed are, in any circumstances, not only wrong but "palpably impossible." On the most vital question of all, in this connection, what is to be our answer when claims for removal of old structures—often for no flimsy reasons—are made; on what grounds and to what extreme points can we reasonably defend them? Is a justification for their removal ever, indeed, to be admitted?—when, for example, they serve no use. Or, put conversely, in what circumstances can justification be found for the retention of buildings, apart from fulfilment of a functional purpose? Are there relative values in ancient buildings—so that a cathedral can be regarded as being on a different plane to, say, an equally ancient street, gateway, or bridge? Is a large town church of more value than a smaller one in the country? If work representing two or more periods is so arranged that the more ancient is covered—and in some cases the *form* of the building considerably changed—by the more recent, must the latter be preserved undisturbed and the original, or earlier, work continue to be disguised? Is such a course, if followed, showing a right respect for the intentions and ideas of those who produced the building? And why, exactly, does Mr. Powys in such a case advise the reader (p. 193) that an attempt to recover or expose *original forms* too often produces difficulties in regard to the *replacing of missing features*, and induces uneasy doubts in those who enjoy ancient workmanship? If we, indeed, deprecate the attempted replacement of missing features, why should that consideration arise to thwart our respect for and desire to see what a building was *originally* meant to look like and to be? And would the discouragement of attempts to expose original work apply equally if the false covering was, say, of the mid-Victorian era? Should wooden props, shoring and sheeting, often so destructive of effect in beautiful ruins, be really advocated—without qualification—as permanent supports? Here the artist's and architect's view may well differ from that of the archaeologist. May we not also feel that the archaeologist, rather than the artist, would speak in favour of view 17, contrasted with that of 18, illustrating a part of Chester Cathedral, even though the "Restoration" treatment may be inherently wrong? The important section of the book that deals with decay in stone facings is of special interest. While showing the great utility—among other methods—of using the adaptable roofing tile, set in mortar, for smaller repairs or renewals of odd shape or in restricted positions, it is satisfactory to note that Mr. Powys supports the common-sense view admitting the use of new stone when, as must often be the case, that course seems most suitable. The frontispiece—illustrating the South Aisle of Henley-in-Arden Church \* after repairs effected in 1922—shows how finely repairs to decayed walling can be done. A general point, made in discussing the possible application of essentially modern methods of repair may be specially commended—that, except in extreme and abnormal cases,

repairs to an old building should be by the means that were traditional when it came into being. It is definitely related to the point already noticed—that we should regard ourselves as under an obligation to abstain from avoidable changes in æsthetic relations, as originally intended. Is paint (p. 82), involving colour changes that may be æsthetically damaging, really a suitable material for arresting decay in stone? A similar point may well be made relative to the disfiguring wire or plate glass guards that often afford protection to ancient or costly glass, and which cannot serve its function, and produce its proper effect, under such conditions—any more than a building, so disfigured, look as it was meant to. While, like the author, we may delight in the beauty of ancient glass, plain or coloured, and dislike intensely the introduction of vulgar modern stained glass windows into old (or new) churches—as with many of those, by Wren, that have suffered so terribly by expensive and tasteless re-glazing—it would seem that Mr. Powys has little encouragement to give to the present-day glass painter.\* The whole book, indeed, while usefully setting out the details of repair work, constantly suggests debatable questions—only a few of which has it been possible to touch upon. One other, that is often obscured in doubt—and Mr. Powys skims over it, ever so lightly—is the question of additions to ancient structures. There can be few to-day who would *needlessly* mar a beautiful and harmoniously weathered old building by attaching to, or even placing near, it a modern addition. But when the latter is called for by practical necessities of an imperative kind—to meet which no reasonably suitable alternative offers itself—need there be opposition, hesitations, or apologies for the adoption of a perfectly commonsense, natural process that has received the unvarying sanction of the ages? For effective use in a building is fundamental—and provides, at the same time, its justification and most sure defence. Nor need the dangerous principle of grading old buildings into categories of value be introduced, so as to make a claim for some to be exempt from the rule of necessity applicable to lesser examples. Casting an eye upon an instance of great controversial interest at the moment it is difficult to see why a "live" church should not be treated as such—though a necessary addition may be suitably admitted in the case of an ancient mansion, and present-day extensions welded on, with little protest or comment, to, shall we say, so noble an example of early 19th century building as the Bank of England. And—leaving aside the teaching and practice of history—is anything to be found in Ruskin or Morris to support the neglect of functional necessity in building? There may be the best of reasons for avoiding imitations of ancient styles,—an irrational process ever to be deplored—and for politely evading undue obtrusion of the new before the old. But that is another matter, and to those of us who believe that the best standard of the building craft of to-day can hold its own with that of the past, it seems a false and unjustifiable position to discourage or forbid—in the supposed interests of ancient structures—legitimate opportunities for contemporary architects and craftsmen. We are on safe ground, it would seem, if

\* Mr. Powys' index needs extension, for it makes no mention of this work, either in illustration or text. And there are many other important omissions.

\* By the by, is this reference to *lead* *colours* correct?



we follow Ruskin's "two duties respecting national architecture," and it is best to leave it at that.

The wide scope of Mr. Powys' book is indicated in the variety of chapter headings:—General advice, surveys, supports and protective works, foundations and walling generally, timber roofs and other carpentry, glazing, plastering, wall paintings, and so on. It would require more competence and courage than we can profess to question the detailed advice—illustrated with great clearness in photographic views and by Mr. J. E. M. Macgregor's admirable drawings—that Mr. Powys provides out of a wealth of collected facts and personal knowledge. With his reasonable plea for the avoidance of rigid dogmatism, in dealing with the widely varying and delicately balanced conditions that arise in repair work, we entirely agree. And, as he suggests, we can most effectively learn how such works should be treated by study of actual examples evolved under such masters of sympathetic conservation as Professor W. R. Lethaby, Mr. William Wier, and Mr. Ernest E. Bowden. To them and others who work, unobtrusively yet most helpfully, in the effective defence of ancient work the cause of true architecture owes a considerable debt. For the basis of such conservation is application of the best technical knowledge and skill, on traditional lines, under the guidance of common sense. The essentially practical character of the advice contained in this book makes that fact increasingly clear, and its general utility as a guide is hardly in doubt. But the real cause for satisfaction is that we have now a work, with a weight of authority behind it, that—revised and amplified in the subsequent editions that we hope will be called for—may be expected to, in time, take its place as a standard work upon a subject of supreme importance to the art of architecture. There can, indeed, be no one, moved by genuine concern for the condition and the ultimate state of our traditional building crafts, but will welcome, and wish the best aspect of success to, this much-needed and ably composed mentor of the science and art of conservation.

#### NOTES ON SOME RECENT FOREIGN PERIODICALS.

By GRAHAM B. TURBS [A.].

Colin Biart was engaged on many buildings in France during Francis I's reign, but his exact status was, until recently, uncertain. Was he a master mason, or a creative artist—in fact, one of the first professional French architects? This is the question that M. Lesueur has tried to answer as a result of his researches, published in the October number of the *Gazette des Beaux-Arts*. After studying the original documents and accounts connected with buildings with which Biart is known to have been associated, such as the Blois, Amboise and Gayon and the Bridge of Notre Dame, Paris, he comes to the conclusion that his position was more nearly that of the architect, in the modern sense, than the master craftsman of mediæval times.

The new *Palais de la Méditerranée* at Nice by MM. C. and M. Dalmas is the chief interest of *La Construction Moderne* for 20 October. The building is the result of a two-stage competition initiated by large hotel interests of the *Côte d'Azur*. The jury was presided over by M.

Nénot, and was large and of rather curious composition, consisting as it did of nine members, including architects (nominated both by the Hotel Company and by the competitors), two hotel directors and two literary men. The plans were given in a previous issue in 1927. The scheme consists of a Casino on the ground floor (with offices for Messrs. Cook's and the Bar de la Frigate), while the upper part contains a first class hotel. The elevations are a very free and modern interpretation of classical form. In the issue of this magazine for 27 October is a photograph of a war memorial at Lyons, by M. Tony Garnier. This consists of a wide, stepped pylon, on one side of which the names of the dead are carved, while on the other is a circular medallion by M. Larrivé, showing War, represented by a nude woman of brutal type, smiting blindly with a sword, against a background of flames.

Among the American magazines for October perhaps the most interesting is the *Architectural Record*, which gives most of its space to the very interesting decoration of the Integrity Trust Company, Philadelphia, by the distinguished Franco-American architect, M. Paul Cret. This is a luxuriously appointed Bank in a good district, and M. Cret has contrived a most sumptuous effect by using new and rare materials in a thoroughly modern manner. The chief feature is a cheque desk made of bronze and monel metal, with an illuminated glass obelisk in the centre. The magazine also has articles on Swedish brickwork (with large scale detail photographs), and on the Van Nelle tobacco factory at Rotterdam.

An appreciation, with many reproductions, of the work of an English architectural etcher, Sidney Tushingham, is given in *Pencil Points* for September, and Kington Parkes pays him a well deserved tribute. E. I. Freese describes the testing of set squares and other instruments in a new series of articles on "The Geometry of Architectural Drafting." This month's issue also contains the first part of an instructive historical paper on the Spanish Mission Buildings of California, from which so much of recent work of this State is derived. They are mostly built by the Franciscans, who succeeded the Jesuits, and who worked in conjunction with the Spanish authorities, notably with the Governor, José Galvez, from about 1768 onwards. Modern versions of this style can be seen in the October number of *California Arts and Architecture*. The Hawthorne School, Beverly Hills, is an essay in the style, although much more ambitious than its eighteenth century prototypes. The October issue of the *Architectural Forum* contains the new building in Philadelphia for N. W. Ayer and Son, which is a semi-skyscraper, with no projecting mouldings, consisting of thirteen storeys, the upper three being set back. There are also photographs of three gardens for which Miss Ruth Dean was awarded the Medal of Honour in the Architectural League Exhibition, 1929, and an article on cold storage buildings showing how the problem of infiltration of heat is dealt with. The construction section contains a long article on the modern use of marble, and gives detailed information about the various kinds of marble, their most suitable uses, and the best methods of maintaining them in good condition after the building is completed. The majority of the marbles mentioned are American varieties, but the products of well-known European quarries are also described.



The winning design, by J. D. Murphy, for the Paris Prize, the most coveted students' "pot" in America, is given in the September number of the *Bulletin of the Beaux-Arts Institute of Design*. This year's subject was "A Monument to the Spirit of the West."

The *Journal of the Royal Architectural Institute of Canada* has plans and views of the 26-storey Beaver Hall Building at Montreal, and the Canadian magazine, *Construction* (September), prints a long paper by Mr. Moritz Kahn (of Albert Kahn, Inc.), advocating the further use of quantity surveyors in the United States, showing the great saving that they can effect, and pointing out that America is 100 years behind England in this respect.

Among the German publications the October *Wasmuths* gives, firstly, fresh evidence of the great vogue for sport that has arisen in Central Europe since conscription was abolished. The examples include stadiums at Vienna, the University of Freiburg, Karlsruhe, and Nuremberg; in the last-named a gymnasium has been ingeniously contrived under the seats of the grand stand. Among other items there is an article by Mr. Hope Bagenal on an architect's impression of Germany, another on the newest Parisian theatre, the Pigalle, and one on the problems raised by the introduction of the "Talkie," illustrated by Herr Mendelsohn's very interesting *Universum Cinema*, Berlin.

*Imun Dekoration* (October), besides many examples of recent furniture designs, gives a number of photographs of a bungalow at Eastbourne, by Mr. J. D. Clarke [P.], while the November *Deutsche Kunst und Dekoration* devotes nearly all its space to photographs of the very interesting decoration of the remarkable new Norddeutscher Lloyd liner, the *Bremen*, and gives some photographs of sculptures in a new technique, by Pablo Gargallo, of Paris. He indicates the different planes by the use of thin sheets of flat metal, while wire and thin rods give the outline of the features and draperies. They are extremely clever, and give most surprisingly realistic effects.

The Spanish *Revista de Arquitectura* of Buenos Ayres (October) describes the buildings at a Barcelona Exhibition, while *Arquitectura* (Madrid) gives measured drawings of the mediæval brick-built "Tower of the Hermit" at Avila, the new Tennis Club at San Sebastian, and a house for a nobleman at Madrid. The Dutch *Bouwkundig Weekblad: Architectura* shows drawings and photographs of the reconstruction and re-equipping of a theatre at the Hague.

## Correspondence

JAUFFRED AND GABRIEL F. SUNLIGHT:  
LEGALISED STANDARDS OF ADEQUATE  
DAYLIGHT.

9 Gray's Inn Square,  
London, W.C.1.  
15 December 1929.

To the Editor, JOURNAL R.I.B.A.—

DEAR SIR,—Mr. Travers, in his letter to THE JOURNAL of 7 December objects to any suggestion that certain

methods of measuring and predetermining daylight have been legalised or have any force of law. It was not, however suggested that they had.

Mr. Travers is confusing the methods of measurement and predetermination used in the case with the standards of adequate light laid down in *Semon v. Bradford Corporation* (1922/1/Ch.).

This judgment has not only been quoted and applied in subsequent judgments, as if binding upon all Courts of first instance, but has also been quoted and approved by the Court of Appeal. Until, therefore, it has been overruled by the House of Lords, it would appear to be somewhat dangerous for architects to accept Mr. Travers's dictum that it has "no more legal force than the old 45 degrees rule."

Mr. Travers also complains that I described myself as the author of the methods which were used in this case to ascertain whether the plaintiffs had or had not "suffered legal damage," i.e., whether they had been left with light above or below the *Semon* standard of adequacy. If he will refer again to your issue of 7 December he will find that the only claim to authorship of the methods used was that made inferentially by the witnesses. It was, in fact, necessary for the author of the explanatory note to be particularly careful on this point, because at that time copyright in the methods referred to had been claimed by a provincial architect, and an action in connection was pending in the Courts.

It may be noted that the facts in the *Semon* case were ascertained by means of methods quite different from those used by witnesses on both sides in the case quoted. In 1922 the methods now generally used had not in fact been perfected.—Yours faithfully,

PERCY J. WALDRAM, F.S.I.

## WESTMINSTER ABBEY SACRISTY.\*

It was announced at the end of October that the Dean and Chapter of Westminster had set up a special committee to review the various schemes for the provision of a sacristy which had been submitted to the Westminster Abbey authorities; to investigate any of them which merited further consideration, and to advise the Dean and Chapter on the whole question.

The committee has now completed its task, and its report will be presented to the Dean and Chapter in the near future. The members have been able to arrive at a unanimous report, which they hope will prove to be a satisfactory solution of the controversy which has raged since the suggested site for the sacristy was first announced. Archbishop Lord Davidson presided, and the other members of the Committee were Sir William Llewellyn, President of the Royal Academy, Sir Banister Fletcher, President of the Royal Institute of British Architects, Mr. C. R. Peers, President of the Society of Antiquaries, Mr. J. F. Green, acting Chairman of the Committee of the Society for the Protection of Ancient Buildings, Lord Newton, and Sir Kynaston Studd.

\* From *The Times*, 11 December.



## The Proposed Charing Cross Bridge

The question of the proposed Charing Cross Bridge is creating widespread interest. *The Times* of 7 December published a leader on the subject, expressing the opinion that the L.C.C., while rightly desiring to seize a present opportunity, had been too precipitate in going forward with the matter, and that it was not only the legitimate business, but the duty, of public bodies to criticize such matters from an aesthetic standpoint. The responsibility of the promoters to posterity was indicated.

We print below in order of date some of the letters which have appeared in *The Times* since our last issue on this subject. On 4 December Mr. H. V. Lanchester [F.] wrote:—

*To the Editor of "The Times."*

Sir,—The case for reconsideration of the official scheme has been so clearly put by the President of the R.I.B.A. and other eminent architects that I should not deem it necessary to write in support of their views but for the suggestion made by Captain Swinton that, while admitting the possibility of reorganising passenger traffic at a low level on the Surrey side, it would not be practicable to deal with the goods traffic on the same lines.

Having gone carefully into this aspect of the question I am convinced that not only is it practicable, but that a very greatly improved organisation of such traffic could be devised, partly carried by tube construction, but delivering at suitable levels for general convenience, and affording facilities for direct underground communication with Smithfield and Covent Garden Markets. The cost of this work would be largely recouped by enhanced values and amenity in the large area south of the Thames, which would be freed from the obstructive railway viaducts, and might thus form part of a fine comprehensive scheme for the improvement of London on both sides of the river.

No costly plan for a bridge and its approaches should be accepted until the economic implications of such a scheme have been explored, as, if the present official plan were adopted, there is little doubt that the next generation will condemn us for having saddled them with a huge expenditure on work which has but little purpose in relation to the essential problem of reorganising London traffic.—

Your obedient servant,

H. V. LANCHESTER,

*President of the S.E. Society of Architects,  
Past President of the Town Planning Institute.*

The *Times* of the same date (4 December) contained the following letter from Sir Percy C. Simmons:—

*To the Editor of The Times.*

Sir,—With reference to the letters which are appearing in your columns from critics of this scheme, may I say that in regard to an important proposal of this character which has been adopted by the Council in close co-operation with the Ministry of Transport, and will shortly come before Parliament for consideration, I feel that it would scarcely be proper that the Council, as promoters of this scheme, should enter into a Press controversy? The Bill will, it is expected, in due course be inquired into by Parliament, who will give, as always, an impartial and unbi-

ased decision on the scheme in the light of such evidence as may be placed before it. I think it right to communicate with you in this sense, in case silence in the Press should be taken to indicate the absence of an adequate answer to our critics.—I am, yours faithfully,

PERCY C. SIMMONS,

*Chairman of the Improvements Committee  
of the London County Council.*

Lord Esher's and Professor Adamshead's letters appeared on 3 December:—

*To the Editor of "The Times."*

Sir,—With great respect to Sir Percy Simmons, may I say that it seems to me quite "proper" (his expression) to ask the County Council to give to the public, through the Press, the fullest information about the Charing Cross scheme. Why should Londoners not see sketches and a model of the proposed vast change in the aspect of their City? Why should they not see the form of question put to Sir E. Lutyens and his reply?

Sir Banister Fletcher was not writing lightly, in a controversial spirit. He was expressing the doubts of the greatest expert authority in the country. Can these doubts be disregarded? If the County Council press on their Bill there is only one course open to Parliament—to throw it out. I sincerely hope that Lord Crawford, who so adequately represents the Fine Art Commission and the Royal Institute of British Architects in Parliament, will take steps to see that the proposed Bill is not hurried through until the project is understood and more widely approved.—Yours faithfully,

ESHER.

*To the Editor of "The Times."*

Sir,—As Sir Banister Fletcher and Mr. Davidge point out in *The Times* to-day, a great variety of schemes for a new Charing Cross Bridge by anonymous authors have been under consideration during the last 20 years. These schemes were collected together and exhibited quite recently by the London Society, and although immature they were of great value as an indication of the many treatments that are possible.

Until the official scheme was produced in *The Times* of Saturday the public had had no opportunity of seeing it. This great London improvement will rank in importance with Nash's Regent Street, begun 100 years ago, and nothing that has been carried out since then can compare with it in the extent of redevelopment that is involved.

Why rush so stupendous an undertaking, and why throw away this magnificent opportunity for properly developing both embankments, which is what the construction of a new bridge really entails? The full significance of all the possibilities involved can only be properly realised by the holding of a great competition—a competition in which the many excellent and varied proposals that have already been made could be more fully developed, together with others as yet unexplored. Quite apart from such controversial questions as to whether the bridge should terminate on the Strand or as to whether the station should come up to the Embankment on the South side, the pre-



sent scheme, as published, is hopelessly confused; it is nothing more than an attempt to avoid small obstacles, minor engineering difficulties, and every sort of obstruction which more mature consideration and further negotiation could undoubtedly remove. Not only does this official scheme lack all architectural dignity, but should it be carried out as now submitted great possibilities for financial recoupment and of enhanced values will be lost.

—Yours faithfully,  
S. D. ADSHEAD,  
*Professor of Town Planning, London University,  
University of London, University College,  
Gower Street, W.C.1.  
3 December.*

We print Sir Reginald Blomfield's letter of 6 December and the President's, which was published on 7 December; *To the Editor of the Times*.—

SIR,—I think all who are concerned about this vital matter will be grateful to *The Times* for opening its columns to the discussion of the official scheme before it is too late. As usual, owing to the way things are done, the discussion could only be taken up at the last moment. At the meeting of the L.C.C. on Tuesday last Sir Percy Simmons is reported as saying:—

"He did not say it was more than a coincidence that the correspondence in the Press only started last week, the very week that Sir Edwin Lutyens was on his way to India and had no opportunity of controverting the Press campaign."

That the correspondence only started some 10 days ago was "no more than a coincidence," and this was due to the fact that it was only within the last two or three weeks that it was reported that the L.C.C. were intending to proceed at once with their Bill. The first I personally heard of that intention was a mere rumour at a meeting of the Thames Bridges Conference on 14 November last. In the circumstances it was obviously necessary that the technical objections to the scheme should be formulated and published with the least possible delay; and this is in fact what has actually been done. May I suggest to Sir Percy quite a different inference from that at which he hints? It is that, instead of endeavouring to rush the Bill through Parliament, time should be allowed for Sir Edwin Lutyens to answer the very serious objections raised by architects to this scheme with which he is connected, and also for that further investigation of the scheme in all its bearings asked for by the R.I.B.A.

Sir Percy said that "the scheme is largely an engineering problem." I venture to differ from him. I have a profound admiration for engineers, including the distinguished engineers who have prepared this scheme; but I admire them within their own province, and their province is constructional work, not town planning and architecture, which are vitally important in this connection. Sir Percy adds that there has been no criticism from engineers. I would suggest that the reason why there has been no criticism from engineers is that the engineers have wisely refrained from criticising matters which are not within their competence. From the remarks made by Admiral Hunter, Mr. Harris, and Mr. Culpin, we may hope that the L.C.C. may yet reconsider its scheme and avoid what has been described as a

monumental blunder. The technical criticism of the official scheme has been made at the very earliest opportunity by men who have made a close study of the subject and cannot be brushed aside as of no account. The objections to the scheme as it stands are far too serious.—Your obedient servant,  
REGINALD BLOMFIELD.

Frognaal, Hampstead, 5 December.

*To the Editor of The Times*.—

SIR,—Sir Percy Simmons's speech in the County Council last Tuesday, 3 December, in recommending the adoption of the draft Bill for the Charing Cross scheme calls for a reply.

I would point out that the so-called "coincidence" of which Sir Percy spoke lies in the fact that the official scheme was not published in *The Times* until last Saturday, but this matter has, I think, been effectively answered by Sir Reginald Blomfield in *The Times* of to-day. The Press campaign of correspondence of which Sir Percy Simmons complains began immediately upon the publication in the Press of the official scheme and could not begin before that publication, as the public had no opportunity of seeing the scheme and there was nothing tangible to criticise. So much for the small matter of the "coincidence."

Now, with regard to authoritative criticism of what was at the time a very nebulous proposition. Sir Percy Simmons must remember that when he introduced the subject in the L.C.C. on 30 July, as reported in *The Times* on 31 July, he had actually before him the criticism submitted by the Greater London Regional Planning Committee, of which I am the chairman. This criticism, which was also published in your issue of 31 July, was by no means late; indeed, I thought at the time that it was even indecently early!

I do not wish to forget, in the slightest degree, the magnificent way that Sir Percy Simmons has carried through these negotiations for a road bridge, for which he deserves our unstinted thanks. I simply advocate delay in order that all the complicated aspects of the scheme may be adequately examined by responsible and competent authorities. I therefore advise, as I did on 4 November in my inaugural address as President at the R.I.B.A.:—

(1) That a scale model be prepared of the whole site to be dealt with.

(2) That a public competition should be advertised forthwith, without any conditions, for a treatment of the required scheme.

This is no matter for merely carping criticism, but as long as doubts exist as to the best treatment of this vast and far-reaching project it is only reasonable and right that there should be time for further consideration and suggestions. I plead in the interest of present and future Londoners, who have a right to the best scheme that can be devised by us, who are the trustees, not only for the present but for the future of London.—Your obedient servant,  
BANISTER FLETCHER.

1, King's Bench Walk, E.C.4, 6 December.

In addition to those published above, letters have been published in *The Times* from Sir Owen Williams, Mr. Percy Lovell (London Society), and Mr. D. S. MacColl.



# National Association for the Prevention of Tuberculosis

FIFTEENTH ANNUAL CONFERENCE HELD AT NEWCASTLE-ON-TYNE ON 10 OCTOBER 1929

REPORT BY THE R.I.B.A. DELEGATE, MR. T. R. MILBURN [F].

I beg to report that I duly attended this Conference on 10 October, and was present at the formal opening of the Conference by the Lord Mayor of Newcastle, and heard addresses on "Tuberculosis on Tyneside: A Sociological Survey," by Henry A. Mess, Esq., and Councillor John Barker, followed by further papers on "The Factors that Produce Adult Pulmonary Tuberculosis," by Dr. Edouard Rist, of Paris, Dr. A. F. Bernard Shaw, Dr. C. G. R. Goodwin, and Sir Thomas Oliver, M.D. The meeting was under the chairmanship of Sir Robert Philip, of Edinburgh, and a reasonable amount of discussion was allowed after the reading of each of these papers.

The Conference was well attended, and consisted of medical practitioners, medical officers, and laymen from all parts of Great Britain interested in the prevention of tuberculosis.

Interesting and outstanding points from the papers might be condensed as follows:—

That overcrowding is not always coincident with the proportion of deaths from tuberculosis.

The lamentable ignorance of people in not taking means to prevent the initial growth and spread of tuberculosis.

The question of milk supply and the small quantity of persons, I think 7 per cent., who availed themselves of the opportunity of taking milk that was certified tubercular-free.

The best means of bringing home to the people themselves matters of hygiene and health.

That everyone born at some time or other is tubercular, and that adults have the germs in their bodies from birth only waiting favourable conditions.

Dr. Edouard Rist, of Paris, made the statement that the date of this tubercularisation could be fixed by examination.

Bad housing was stated to be the worst factor in the development of tuberculosis, not only in cities, but in small market towns and even in villages. There were cases of tuberculosis where the conditions were ideal, where no contact had been made with infective cases, and where there was no family history to account for it, yet tuberculosis had developed through causes that could not be ascertained.

A great deal of time, of course, was devoted in the papers of the treatment of patients under the second and advanced stages.

The whole of Sir Thomas Oliver's paper was devoted to the industrial side of tuberculosis and dust, the question of spreading of fine dust from granite, stone, gold dust, and dust, in fact, from all industrial processes and their effects.

One working-man speaker spoke very strongly on the relation of tuberculosis to low wages, insufficient food, and claimed that tuberculosis was a class disease. This, however, was shown not to be so, as although every sympathy could be extended to the very poor, and acknow-

ledgement made that tuberculosis was probably more severe in the crowded areas, yet a good many victims are claimed from the better class homes where food and surroundings would not enter into the case at all.

My general impression of the Conference was that the papers were most interesting, but if I could make any criticism, it would be that the papers were too long and too little time was left for discussion.

I joined to some extent in the discussions and reported that I was representing the Royal Institute of British Architects, and pleaded for a close co-operation between the Association and the Royal Institute of British Architects. My point was that architects and builders of houses could only enter the question from the preventive side, and spoke of what I called stuffy bedrooms and that the tenants of houses could not be altogether blamed for not having their rooms well aired, although I admitted that every modern house had reasonable windows and means of ventilation. Economic conditions had so restricted the cost of the new working-class houses that very often in small bedrooms beds have to be placed quite close or underneath the windows, and you cannot expect people to open their windows in very cold and windy weather. To my mind the ventilation of small bedrooms is just as important as the question of overcrowding or putting too many houses to the acre. It is very difficult to find a solution to the question of ventilation of bedrooms, and the fact that so many of the new houses are erected along main roads, the abnormal noise now on highways adds to the difficulty.

There is no question that ventilation without draught can be obtained heat from ordinary sash windows by making a deep sill and having an air space at the meeting board, but most of the new houses are fitted with casement windows, and here it is more difficult to get ventilation without draughts.

Sir Robert Philip, in his summing up at the end of the meeting, assured me that it was the earnest desire of the National Association of Prevention of Tuberculosis to enter into close co-operation with any society or institute that would be of help, and that the Association was already in touch with the Royal Institute of British Architects, and had issued leaflets on the very point I spoke about, namely, the aeration of bedrooms.

I have not attended the papers which dealt with the more medical side of the question, nor visited the hospitals, but hope I have covered the points which affect the Royal Institute of British Architects.

## ROYAL FINE ART COMMISSION FOR SCOTLAND.

The King, on the recommendation of the Secretary of State for Scotland, has approved the appointment of Mr. James Miller, A.R.S.A., F.R.I.B.A., to be a member of the Royal Fine Art Commission for Scotland, in the room of the late Sir Robert Stodart Lorimer.



## LONDON BUILDING ACTS COMMITTEE.

The attention of the London Building Acts Committee of the Royal Institute of British Architects has been directed to regulations made at various times by the London County Council governing the erection of certain classes of London buildings. These regulations are not usually included in the copies of the Building Acts in general use, and the Committee consider that their publication in the JOURNAL may be helpful to all concerned.

Regulations 130 and 132, refer to the Cubical extent, height, etc., permitted for buildings used for trade or manufacture.

Regulation 130 refers to buildings which are entirely in one occupation and Regulation 132 to buildings which are used for trade in the lower portion and for other purposes in the upper storeys.

LOUIS BLANC,

*Hon. Secretary, London Building Acts Committee.*

The text is as follows:—

## REGULATION 130.

## LONDON COUNTY COUNCIL.

REGULATIONS WITH REGARD TO APPLICATIONS UNDER PART III OF THE LONDON COUNTY COUNCIL (GENERAL POWERS) ACT, 1908.

*Additional cubical extent.*

1. No application for consent to the provision of additional cubical extent shall be entertained in respect of a building which is or is to be in more than one occupation.

2. All consents shall be subject to such fire-extinguishing appliances being provided as may in the opinion of the Council be necessary, and to direct telephonic communication being established with a London Fire Brigade station if required by the Council.

3. No heating, lighting, electrical or ventilating arrangements shall be installed unless and until a detailed specification of the proposals has been submitted to and approved by the Council, and except in accordance with such approved specification.

4. Arrangements for lessening the danger from fire in premises in respect of which consent is given shall be properly maintained. Premises will be liable to inspection by the chief officer of the London Fire Brigade to ensure such proper maintenance.

5. In dealing with applications in respect of buildings of the various classes set out hereunder, the following principles shall be considered in conjunction therewith. In any case they may be varied or other conditions imposed, as the Council thinks fit. These regulations are to be considered in conjunction with the provisions of the Act, and in no way as a modification of those provisions.

(a) As regards buildings not more than one storey in height in one occupation, and used exclusively for the manufacture of boilers or machinery in metal, and for all kinds of metal work in connection with metal-framed structures, such cubical extent may be allowed as may in the opinion of the Council be reasonable, having regard to the circumstances of the case, provided that—

(i.) The building be more than two miles distant from St. Paul's Cathedral if the operations of smelting or melting be carried on therein.

(ii.) The building, including fittings and fixtures, but excluding doors, windows, skylights, lantern lights and their frames, be constructed throughout of incombustible materials.

(iii.) Any portion of the building used for the manufacture or storage of oils or varnishes, moulds, models,

frames, patterns or other substances or articles of a combustible nature, be properly and efficiently separated from, and not included in, the portion of the building in respect of which additional cubical extent may be allowed and do not exceed the limits prescribed in the Act.

(b) As regards buildings of more than one storey in height in one occupation and used exclusively for the use, manufacture or storage of non-inflammable or fire-resisting or incombustible materials, such cubical extent may be allowed as may in the opinion of the Council be reasonable, having regard to the circumstances of the case, provided that—

(i.) The height of the building do not, except with the consent of the Council, exceed 80 feet, measured from the pavement level to the underside of the ceiling of the topmost storey.

(ii.) The building be not less than 40 feet from any other building, except where it is entirely separated therefrom by an imperforate wall of the thickness required by the London Building Act, 1894, and of the full height of the higher building throughout.

(iii.) The building be constructed throughout of incombustible material, and the doors, windows, skylights, lantern lights and their frames be constructed of fire-resisting materials.

(iv.) All floors be imperforate except as hereinafter provided, and be furnished with scuppers to carry off water poured on during a fire.

(v.) All constructional ironwork below the level of the surface of the floor of the topmost storey be protected by not less than two inches of incombustible material.

(vi.) All openings in the external walls or roofs, excepting staircase windows and shop windows on the ground floor, when the show spaces are separated from the main building by fire-resisting enclosures, be fitted with fire-resisting frames filled in with fire-resisting doors, shutters or glazing, a sufficient portion of the filling of the openings above the ground storey being made so as to be easily opened from the outside in order to facilitate the ingress of firemen.

(vii.) Vertical shafts for staircases, staircase enclosures, lifts, hoists, shafts or trunks for pipes or wires, and other leads and horizontal ducts, be properly and efficiently separated by walls and fire-resisting doors from the divisions in respect of which additional cubical extent is required, and from any other division communicating therewith, and be so arranged that the access to such shafts or ducts from any floor shall be provided with a secondary incombustible enclosure with self-closing fire-resisting doors.

(viii.) If any vertical shafts be roofed, the roofs be constructed of light frames, filled in with thin glass and protected on the outside by strong wireguards, and the shafts be carried up not less than three feet above any adjoining roofs.

In the case of a shaft not carried up to and through the roof, it be sealed over at the top with solid incombustible material not less than six inches thick.

(ix.) All horizontal trunks, ducts, etc., be enclosed with solid incombustible material not less than three inches thick.

(x.) Any portion of the building used for packing or for the storage of packages be properly and efficiently separated from the portion of the building in respect of which additional cubical extent may be allowed.



(xi.) When the building is more than two storeys above the ground storey, and the total extent between party walls exceeds one million cubic feet, there be provided at least one unenclosed staircase constructed of brick and concrete, affording access to all floors and the roof through the outer air, without any internal communication with the building.

(xii.) If the building exceed 250,000 cubic feet,  $\frac{1}{4}$ th at least of the total length of the boundaries of the site do abut upon a thoroughfare or thoroughfares not less than 40 feet wide.

If the building exceed 1,000,000 cubic feet,  $\frac{1}{4}$ th at least of the total length of the boundaries of the site do abut upon a thoroughfare or thoroughfares not less than 40 feet wide.

If the building exceed 2,000,000 cubic feet,  $\frac{1}{4}$ th at least of the total length of the boundaries of the site do abut upon a thoroughfare or thoroughfares not less than 40 feet wide.

If the building exceed 3,000,000 cubic feet,  $\frac{1}{4}$ th at least of the total length of the boundaries of the site do abut upon a thoroughfare or thoroughfares not less than 40 feet wide.

If the building exceed 4,000,000 cubic feet, the site be an island site.

(c) As regards buildings of more than one storey in height in one occupation and used for the sale and storage or manufacture, but not for storage purposes only, of goods of a non-fire-resisting nature, or used for the purposes of a trade involving the use of materials of a non-fire-resisting nature, additional cubical extent may be allowed, subject to the provisos (i.) to (xii) set out in paragraph (b), and provided also that—

(xiii.) The basements be entirely cut off from the ground floor and upper floors of the building and approached only by a separate means of access from the outside of the building.

(xiv.) Any lifts from the basements be adjacent to an external wall or do have no internal communications with the storeys above.

(xv.) No division or cell on any floor formed by the vertical and horizontal separations do exceed 500,000 cubic feet, and the floor area of such division or cell do not exceed 40,000 square feet.

(xvi.) Every floor be of the thickness required by the Council, such thickness not being less than 6 inches.

(d) As regards buildings of not more than three storeys in height in one occupation and used as motor garages or car-sheds, or for other similar purposes, such cubical extent may be allowed as may in the opinion of the Council be reasonable, having regard to the circumstances of the case, provided that—

(i.) The building be constructed throughout of incombustible materials, and be completely separated by imperforate walls from adjoining properties.

(ii.) Any store for petrol be completely separated from the main building.

(iii.) Any portion of the main building used for the manufacture or storage of varnishes or oils, or moulds, models, frames, patterns or other substances or articles of a combustible nature, be properly and efficiently separated from and not included in the portion for which additional cubical extent may be allowed, and do not exceed the limits prescribed in the Act.

#### *Openings in party walls.*

6. Applications for consent to openings larger than those allowed by the Act in party walls separating divisions of cubical extent will not be entertained unless the buildings affected be constructed throughout of incombustible materials, and unless—

(i.) The openings be fitted with double doors or shutters in accordance with the provisions of the Act at a distance apart of not less than one-fourth of the full width of the proposed opening.

(ii.) The width of all such openings taken together on each floor do not exceed one-half of the length of the party wall on each floor in which they occur.

MONTAGU H. COX,  
*Clerk of the Council.*

The County Hall,  
Westminster Bridge, S.E.1.  
October 1928.

#### REGULATION 132.

LONDON COUNTY COUNCIL (GENERAL POWERS) ACT, 1908—  
REGULATION 132.

2. Regulation 132, which is based on a decision of 23 June 1925 (p. 939) is as follows:—

Buildings to which section 17 of the London County Council (General Powers) Act, 1908, applies and in which no portion above the ground-floor storey is used for trade or manufacture or for warehouse purposes, may be erected to a height not exceeding 100 feet, measured from the pavement level to the underside of the ceiling of the top-most storey, provided that, if such a building be erected to a greater height than 80 feet measured on the foregoing basis, the following conditions, in addition to any other conditions which the Buildings Acts Committee may consider necessary in any particular case, shall be complied with:—(i) that fire appliances, to include an approved automatic sprinkler installation, shall be provided throughout the whole of the building, including that portion used for other than trade, manufacture or warehouse purposes, and (ii) that the portion of the building above the ground-floor storey, shall be entirely cut off from the portion used for trade, manufacture or warehouse purposes.

We are of opinion that the regulation might be extended to permit the first-floor storey of any building to which the regulation applies to be included in the trade or warehouse portion of such building, subject to the height of the ceiling of the first-floor storey not exceeding 45 feet, measured from the pavement level. We are also of opinion that the upper portions of such buildings, if and so far as they consist of residential flats, but not otherwise, should be exempted from the condition requiring the provision of fire appliances, including sprinklers. The Fire Brigade Committee concur in these proposals. The General Purposes Committee will deal with the amendment of the regulation. We recommend:—

That, subject to the height of the ceiling of the first-floor storey not exceeding 45 feet, measured from the pavement level, the erection of buildings to which section 17 of the London County Council (General Powers) Act, 1908, applies and in which no portion above the first-floor storey is used for trade or manufacture or for warehouse purposes, be permitted on the terms laid down in resolution 1 of 23 June, 1925 (p. 939), in respect of buildings of which the ground-floor storey only is so used; and that the upper portions of any building to which section 17 of the above-mentioned Act of 1908 applies be exempted from the requirements as to the provision of fire appliances, including sprinklers, if and so far as such upper portions consist of residential flats, but not otherwise.

AGREED,

18 December 1928.



## Allied Societies

*(The attention of Members of the Allied Societies is particularly called to this page)*

### ESSEX, CAMBRIDGE AND HERTS SOCIETY OF ARCHITECTS. WEST ESSEX CHAPTER.

A meeting of the West Essex Chapter of the Essex, Cambridge and Herts Society of Architects was held on Thursday, 5 December, at the Old Chapter House, St. Paul's Churchyard, to do honour to the architects and staff who had been concerned during the last seventeen years in the restoration of the Dome of St. Paul's Cathedral, and to present a copy of the details of the work, signed by the five architects concerned, to the City Livery Club, where it will be open for inspection upon application to students of architecture.

The presentation was made after a delightful speech by Sir Charles Nicholson, Bart., M.A., F.R.I.B.A., Major A. E. Watts, C.C., the ruling President of the City Livery Club, in accepting it, spoke of the happy association of the West Essex Chapter with the Club and the common objects they were pursuing in maintaining the best traditions of London.

The toast to the Cathedral architects was responded to by Mr. W. Godfrey Allen, who complimented his colleagues without touching upon his own work, which was afterwards referred to by Mr. Ian MacAlister, M.A., the Secretary of the Royal Institute.

A programme of music was given by the Gidea Park Quartette Party and Major Watts also sang.

Other guests included Miss Barbara Nicholson, who, with her father, Sir Charles, received the guests; Mr. E. C. Allen; Mrs. Arnold; Mr. Walter Ashley, M.A.; Mr. Austin Balls; Mr. Hugo Bird, F.R.I.B.A.; Mr. Bolwell; Mrs. Crowe and Mr. J. J. Crowe, A.R.I.B.A.; Mr. S. Phillips Dales, F.R.I.B.A.; Mr. Dawson, A.R.I.B.A.; Mr. Edward Fincham, A.R.I.B.A.; Mr. Stanley J. Funnell; Mrs. and Miss Garbe and Mr. Richard L. Garbe, A.R.A.; Mr. J. C. F. James, A.R.I.B.A.; Mr. W. E. Lewis, A.R.I.B.A.; Mr. Ernest Lloyd; Mr. and Mrs. A. E. Robertson; Mrs. Russell; Mr. A. C. Russell, L.R.I.B.A.; Mr. and Mrs. Sheffield; and Mr. T. G. Scott. Sir Charles Nicholson, Bart., Mr. Hugo R. Bird and Mr. S. Phillips Dales have been appointed on the Statutory Advisory Committee of the Southend School of Arts and Crafts.

### THE SOUTH WALES INSTITUTE OF ARCHITECTS. CENTRAL (CARDIFF) BRANCH.

Under the auspices of the South Wales Institute of Architects (Central Branch) and the Institute of Builders (South Wales Branch), a lecture was delivered at the Engineers' Institute, Cardiff, on Thursday, 28 November, by Professor W. Norman Thomas, M.A., D.Phil., A.R.I.B.A., Professor of Engineering, University College of South Wales and Monmouthshire.

Professor Thomas, who took as the subject of his lecture "Building Materials," has made an exhaustive study of such matters. He gave much valuable information regarding the best materials to be used for particular purposes, together with the treatment under various circumstances which would give the best results. References were made during the course of the lecture to instances of stone decay in various buildings in Cardiff, and the lecture was well illustrated by lantern slides and various exhibits.

A cordial vote of thanks to Professor Thomas was carried on the motion of Mr. C. F. Ward, F.R.I.B.A., of Newport, seconded by Mr. D. Sibberring Jones.

Mr. J. E. Turner, J.P., F.I.O.B., who presided over a large audience, drew attention to Professor Thomas's work at the University College of South Wales and Monmouthshire, where courses for builders leading to a degree have been established.

At the invitation of the Chairman and the Executive Committee of the South Wales Institute of Architects (Central Branch), an enjoyable and instructive evening was spent by the members on Tuesday, 3 December, when a tea and a discussion meeting was held at Messrs. David Morgan's Café, Cardiff.

The subject arranged for the evening was "The Form of Contract and Questions arising in connection with the Contract Documents," and, under the chairmanship of Mr. H. Norman Edwards, a discussion took place which proved interesting not only to the younger members present but also to many of the senior architects who were glad to have the opportunity of discussing a number of interesting problems in an informal manner.

Among those taking part may be mentioned Messrs. Ivor Jones, A.R.I.B.A. (Secretary of the South Wales Institute of Architects); T. Alwyn Lloyd, F.R.I.B.A. (President of the South Wales Institute of Architects); C. F. Jones, A.R.I.B.A.; S. Knight Thomas, A.R.I.B.A.; R. H. Winder, M.A., F.R.I.B.A.; L. F. Richards, F. K. Aitken and Miss O. E. Price.

On the motion of Mr. W. S. Purchon, M.A., F.R.I.B.A., seconded by Mr. C. J. Bartlett (Chairman of the School of Architecture Club), a vote of thanks to the Chairman, was passed with acclamation.

### WEST YORKSHIRE SOCIETY OF ARCHITECTS.

A large attendance of members was presided over by Mr. G. H. Foggitt at a meeting of the West Yorkshire Society of Architects held on 5 December, at the Hotel Metropole, Leeds, the occasion being a demonstration by Mr. H. Millard, under the auspices of Messrs. G. and T. Earle, Ltd., of the possible textural finishes that can be given to exterior cement facing, the processes being described in a running commentary by Mr. G. McLean Gibson, A.M.I.C.E. Mr. Gibson remarked that a plasterer, ordinarily, prepared his rendering with a more or less vertical scratched key, with horizontal screeds, but he found that horizontal scratching, and vertical screeds, with the float worked from the bottom upward, was more effectual. About twenty various finishings were demonstrated by Mr. Millard, among them being: "Modern American," "Californian," "Moorish," "English Cottage," "Mexican," "Green Back," and "French Brush." The exhibition greatly interested those present.

In moving the vote of thanks, Mr. H. Chippindale said that although admiring several of the textural effects shown, he rather doubted the fastness of some of the colouring matter if used in the neighbourhood of such cities as Leeds and Bradford.

Mr. F. Mitchell seconded the vote of thanks.

Mr. G. H. Foggitt welcomed Messrs. Earle's offer to arrange classes under the society's auspices for operative plasterers to gain a knowledge of the various styles of finish to which exterior cement work was susceptible.

At the conclusion, on a vote being taken, the style of finish under the title of "English Cottage," found most favour among the members present.

### PUBLIC WORKS, ROADS AND TRANSPORT CONGRESS.

Mr. B. Price Davies, F.S.I.(L), City architect, Bangor, has been awarded the first prize of a gold medal and fifty guineas by the Committee of the Public Works, Roads and Transport Congress (1929) for a paper on "The Arrangement and Economics of a Town Plan," submitted in open competition.



### BEAUTIFYING OUR ROADS.

The Sculpture Section of the Roads of Remembrance Committee of the Roads Beautifying Association has issued an appeal for the introduction of works of British sculpture to add to the interest and beauty of our countryside and roads, from which we publish extracts:—

Now that there is so much evidence of an awakening interest in the preservation of, and additions to, the beauty of rural England, and now that new roads are being made in all directions throughout our land, it behoves all classes, whether individuals or members of a society, guild, or corporate body, to take a share in trying to increase the charm of the old roads and in seeking to beautify the new ones.

To a certain extent the idea is already being developed by local authorities and public bodies—notably by the Roads Beautifying Association—in the direction of planting trees and flowers by the roadside. Beyond this, however, another art, that of sculpture, may be called in to provide, in certain places, added interest and beauty, and by its use not only to record details of local or general history, or to keep in remembrance famous persons or the memory of those who fell in the Great War, but also to provide beautiful objects of utilitarian interest as well. Sculpture is the only permanent art which will do all this.

The sculptural works which are here proposed might take the form not only of figures or groups in stone or bronze, suitably placed among or with a background of trees and flowers at points of interest, but also of fountains, drinking-troughs, seats, large bird-baths, sign-posts, lamp standards, village signs, and similar objects of utilitarian value, all sculpturally and decoratively treated. Such objects might especially be placed at cross-roads or on village greens, or at the entrance to towns and villages.

It is in order to assist in carrying out the above ideas that a Sculpture Advisory Committee has been formed as an adjunct to the Roads of Remembrance Committee of the Roads Beautifying Association. It includes a number of well-known sculptors and architects and is constituted as follows: Major-General Lord Edward Gleichen, chairman; Mr. W. Reynolds-Stephens, president, Royal Society of British Sculptors; Mr. E. Guy Dawber, A.R.A., past-president, R.I.B.A.; Sir W. Goscombe John, R.A.; Mr. W. Reid Dick, R.A., of the Royal Fine Arts Commission; and Professor S. D. Adshhead, of the Royal Fine Arts Commission and Town Planning Institute.

Their duties will be to assist gratuitously public bodies or private benefactors with advice as how best to carry out sculptural ideas on roads and elsewhere to the best advantage. Trained experience is essential for this purpose, so as to combine the best and most appropriate work with the selection of the best sites. It might further be added that where it is wished to commemorate some great poet, artist, or writer, a representation of one of his characters will often prove of far greater interest than the mere bodily representation of the man himself. A portrait-medallion could, of course, be added if desired.

Any individual or corporate body willing to help this all-important movement by making a gift of sculpture, or requiring preliminary suggestion or advice in regard to a contemplated gift of sculpture, or an opinion for the guidance of the highway authorities concerned, should write to the Hon. Secretary, Roads of Remembrance, 47, Victoria Street, London, S.W.1, who will bring the subject without delay before members of the Sculpture Advisory Committee.

The appeal is signed by Lord Ullswater, president of the Roads of Remembrance Committee; Major Richard Rigg, chairman of the Council; and Lord Edward Gleichen, chairman of the Sculpture Committee.

### NEW STATE SCHOOLS AND POOR LAW WORK.

The question of the new school work which will be necessary in the near future in view of the approaching legislation to raise the school leaving age of children attending elementary schools has been under consideration by the Council.

The changes effected by the recent Local Government Act transferring the responsibility for many types of building from the Boards of Guardians to County and other Local Authorities and the probability that new buildings or additions to existing buildings will be required have also been considered.

At the request of the Council, the President has addressed letters to the President of the Board of Education and the Minister of Health asking them to use their influence to ensure that this work is carried out by properly qualified architects, and the Allied Societies have been recommended to take the matter up with Local Authorities in their districts.

### THE DESIGN OF SCIENCE BUILDINGS.

In the discussion on Mr. Munby's paper on "The Design of Science Buildings" in the last issue of the JOURNAL of 7 December an unfortunate error was reported in the President's speech on page 88. The President did not say "but you can hardly expect the designer to know that a fume cupboard wants an exit." This sentence should have read "for every designer knows that a fume cupboard wants an exit."

### ELECTION OF STUDENTS R.I.B.A.

The following were elected as Students at the meeting of the Council held on 2 December 1929:—

- ADAMSON: ANTHONY PATRICK CAWTHRA, 11 Chelsea Park Gardens, S.W.3.  
 ASGHAR: SYED ALI, 23 Burnbank Gardens, Glasgow (West).  
 ASHWELL: HAROLD JAMES, 12 Cambridge Terrace, Hyde Park, W.2.  
 CARNegie: JOHN DESOON, 137 Warrander Park Road, Edinburgh.  
 CHITTY: ANTHONY MERLOTT, Cotton Hall House, Eton College, Windsor.  
 DYSON: WILLIAM PARKER, Manor House, Hooton Roberts, Rotherham, Yorks.  
 GILLESPIE: HAROLD, 4 Linadale Street, Belfast, Ireland.  
 HOWARD: DEBORAH BENSON, Firbank, Loughton, Essex.  
 JEFFRIES: THOMAS ARNOLD, College of Art, Edinburgh.  
 KELLY: RICHARD HARRISON, "Sloane Lea," Aintree, Liverpool.  
 MOSING: GEOFFREY JAMES, Saxonholme, Bearsden, Glasgow.  
 MUDD: FRANCIS WILLIAM, 9 Fern Bank, Otley.  
 NISBET: JOHN AYTHELSTAN VICTOR, 14 Old Square, Lincoln's Inn, W.C.2.  
 NISBET: JOHN VERNY, Easington, Weybridge.  
 NORTHVOY: ERNEST CHARLES, 86 Woodwarde Road, S.E.22.  
 PENDERBY: ARTHUR JOHN, "Hardwycke," Bishops Road, Sutton Coldfield.  
 REYNOLDS: FRANCIS MAURICE, The Noak, Oughtlington, Lynton, Cheshire.  
 SOUTHAIR: JOSEPH JOHN LE JUEZ DE, 13 Rue du Cherche Midi, Paris VI, France.  
 SHERIDAN: JOHN GERARD, 47 Catherine Street, Liverpool.  
 SHIRES: GEOFFREY RICHARD, Brincliffe, 40 Thorne Road, Doncaster.  
 TURNER: WILFRID JOHN CARPENTER, Overton Rectory, Basingstoke.  
 WHEELER-CARMICHAEL: SAMUEL DENNIS, 22 Portford Street, W.3.



## Notices

### THE FIFTH GENERAL MEETING.

The Fifth General Meeting (Ordinary) of the Session 1929-30, will be held on Monday, 6 January, 1930, at 8 p.m., for the following purposes:

To read the Minutes of the General Meeting (Ordinary) held on 16 December, 1929, formally to admit members attending for the first time since their election; to announce the names of candidates nominated by the Council for election to the various classes of membership. To read the following paper: "Regional Planning with special reference to Greater London," by Dr. Raymond Unwin [F.] To present the R.I.B.A. London Architecture Medal and Diploma for 1928 to Messrs. J. Murray Easton [F.] and Howard Robertson [F.] for their building, the Royal Horticultural Society's New Hall, Greycoat Street, Westminster. To read the Council's Deed of Award of Prizes and Studentships, 1930.

### CHRISTMAS HOLIDAY LECTURES ON ARCHITECTURE FOR BOYS AND GIRLS.

Tickets for the informal talks to boys and girls on "Architecture," by the Hon. Humphrey Pakington—announced in the last issue of the JOURNAL—are now being issued, and the supply is almost exhausted.

The lectures will be held on the following dates:

Monday, 30 December, 1929, at 3.30 p.m.

Wednesday, 1 January 1930, at 3.30 p.m.

Friday, 3 January 1930, at 3.30 p.m.

They are for boys and girls only, but adults will be admitted if accompanied by children. No charge will be made for admission, and members who desire tickets are requested to make application as soon as possible.

### R.I.B.A. STATUTORY EXAMINATION FOR DISTRICT SURVEYOR AND THE EXAMINATION FOR BUILDING SURVEYOR.

The R.I.B.A. Statutory Examination for the office of District Surveyor under the London Building Acts, and the examination for Building Surveyor under Local Authorities, will be held at the R.I.B.A., London, on 7, 8 and 9 May 1930.

The closing date for receiving applications for admission to the Examinations, accompanied by the fee of £3 3s., is 16 April 1930.

Full particulars of the Examinations and application forms can be obtained from the Secretary R.I.B.A.

### ELECTION OF MEMBERS, 7 APRIL 1930.

Associates who are eligible and desirous of transferring to the Fellowship are reminded that if they wish to take advantage of the election to take place on 7 April 1930 they should send the necessary nomination forms to the Secretary R.I.B.A. not later than Saturday, 11 January 1930.

### LICENTIATES AND THE FELLOWSHIP.

The attention of Licentiates is called to the provisions of Section IV, Clause 4 (b) and (c) of the Supplemental Charter of 1925. Licentiates who are eligible and desirous of transferring to the Fellowship can obtain full

particulars on application to the Secretary R.I.B.A., stating the clause under which they propose to apply for nomination.

### CONDITIONS OF CONTRACT.

In answer to many inquiries made by members regarding the recognised Form of Contract, the minute of the General Meeting (Business) held on 10 June 1929, is reprinted below for information:—

"Resolved that this meeting of the R.I.B.A. after full consideration of the terms of the proposed draft of the New Form of Contract now again submitted as in amendment of the existing and agreed 1909 Form of Contract, is unable to accept the same, but concurrently renews its offer to reconsider the amendment of the 1909 Form where necessary."

### LIMITED COMPETITIONS

The attention of the Competitions Committee has been called to an attempt which was made recently by an employing authority to infringe the spirit of the last paragraph of clause 10 of the R.I.B.A. Competition Regulations while observing the letter.

This paragraph reads:—

"Provided that nothing in this Clause shall prevent two or more members of the Royal Institute from giving advice or preparing sketch plans for the same project for a private client, if the expenditure proposed does not exceed the sum of £12,500, and if each of the members so invited be paid an agreed fee."

In the case in question a number of the local architects were invited to submit plans for a fairly important project for a fee of £1 1s. each.

The Competitions Committee express the hope that in loyalty to the profession in general and to their own interests in particular, members will insist on the payment of a reasonable fee in such cases.

### R.I.B.A. REGULATIONS FOR ARCHITECTURAL COMPETITIONS.

The following revisions in the R.I.B.A. Competition Regulations which were approved by the General Body on 3 December 1928, have now been approved by the Allied Societies and will be incorporated in the Regulations forthwith.

1. The insertion of the following words on page 1 after paragraph (c):

"This regulation shall also preclude the regular staff and present students of a School of Architecture from taking part in a competition in which a member of the regular teaching staff is acting as sole Assessor, but not in cases where a jury of three or more Assessors is concerned of whom only one is a member of the regular teaching staff."

2. The insertion of the following words on page 2, clause 1, at the end of the second paragraph:

"The foregoing Scale is exclusive of travelling and other out-of-pocket expenses, which are to be charged in addition."

3. The omission of the following words from page 3, clause 6, section (d):

"or the estimate of the competitor should no outlay be stated."



### INSTITUTE OF ARBITRATORS (INCORPORATED).

#### LECTURES ON CONTRACT: ILLUSTRATED BY BUILDING CASES.

In pursuance of the educational policy of the Institute, the Council has made arrangements for six lectures to be delivered by Mr. W. E. Watson, Barrister-at-Law, on the above subject, at the Incorporated Accountants Hall, Victoria Embankment, W.C.2 (near Temple Station).

The lectures will be held every Thursday at 4 p.m. from 16 January to 20 February inclusive. The fee for the course is £1 4s.

These lectures will be in the nature of a Post Graduate or "refresher" course and are open to members of the Institute and other interested persons.

Those desirous of attending should communicate with the Institute of Arbitrators (Incorporated), 10 Norfolk Street, Strand, W.C.2.

#### SYLLABUS.

- 16 January. Lecture I.—Essentials of Contract.
- 23 January. Lecture II.—Remedies in Contract.
- 30 January. Lecture III.—Defences in Contract.
- 6 February. Lecture IV.—Defences in Contract.
- 13 February. Lecture V.—Legal Interpretation in Contract.
- 20 February. Lecture VI.—Maxims of Contract.

## Competitions

### ABERYSTWYTH: PROPOSED WINTER GARDEN AND BAND PAVILION.

The Aberystwyth Corporation invite architects to submit, in open competition, designs for a Winter Garden and Band Pavilion.

Assessor: Mr. Arnold Thornely [F].

Premiums: £100, £70 and £30.

Last day for receiving designs, 1 January 1930. Conditions of the competition may be obtained on application to the Town Clerk, Town Hall, Aberystwyth. Deposit £2 2s.

### ACCRINGTON: NEW POLICE AND FIRE STATIONS.

The Accrington Corporation invite architects to submit, in open competition, designs for new Police and Fire Stations.

Assessor: Mr. Herbert J. Rowse [F].

Premiums: £250, £150 and £100.

Last day for receiving designs, 28 February 1930. Conditions of the competition may be obtained on application to the Town Clerk, Town Hall, Accrington. Deposit £2 2s.

### ANZAC MEMORIAL BUILDING, SYDNEY, N.S.W.

The Trustees of the Anzac Memorial Building invite competitive designs for an Anzac Memorial to be erected in the City of Sydney, New South Wales.

The qualification of competitors is defined in the conditions of competitions as follows:—

"The competition is limited to Australians who are legally qualified as architects in New South Wales or who are legally qualified to practice architecture outside of New South Wales provided that no competitor shall be employed as architect to the work until he has been duly registered as a legally qualified architect in New South Wales or until other arrangements, satisfactory to the Trustees and to the Board of Architects of N.S.W., shall have been made.

"Nothing in these conditions shall preclude the association of an Australian sculptor with a competitor either during the competition or in the execution of the work.

"For the purpose of this competition 'Australian' shall mean a natural born British subject who has practised or worked in Australia either as a principal or an assistant. Provided that no Australian soldier within the meaning of Part 4 of the Australian Soldiers' Repatriation Act 1920 shall be excluded by this clause."

The competition will be conducted in two stages; the closing date for the first stage is 24 January 1930. The cost of the Memorial is to be £75,000. The conditions of competition have been approved by the Institute of Architects of New South Wales.

Conditions of competition may be obtained from the office of the Trustees of the Anzac Memorial Building, 3rd floor, Wingello House, Angel Place, Sydney, or from the offices of the Institutes of Architects in the various Australian States, or from the office of the Agent-General for New South Wales, Australia House, London.

### GOSPORT: PROPOSED PLEASURE RESORT AND GROUNDS.

The Competitions Committee desire to call the attention of members to the fact that the conditions of this competition are not in accordance with the Regulations of the R.I.B.A. The Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime members should not take part in the competition.

### GUILDFORD: NEW MUNICIPAL BUILDINGS.

The Guildford Corporation propose to invite local architects to submit, in competition, designs for new municipal buildings.

Assessor: Mr. T. S. Tan [F].

Premiums: £50 and £25.

[Conditions are not yet fully settled.]

### KING'S LYNN: PROPOSED NEW SCHOOL.

The Competitions Committee desire to call the attention of members to the fact that the conditions of this competition are not in accordance with the Regulations of the R.I.B.A. The Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime members should not take part in the competition.

### LIVERPOOL: PROPOSED PIER HEAD IMPROVEMENTS.

The Liverpool City Council propose to offer premiums of 1,000 guineas and 500 guineas in connection with a competition for the improvement of the amenities of the Pier Head.

[Conditions are not yet available.]

### ONGAR: COTTAGE HOSPITAL.

The Competitions Committee desire to call the attention of members to the fact that the conditions of this competition are not in accordance with the Regulations of the R.I.B.A. The Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime members should not take part in the competition.



## SWANSEA: MUNICIPAL BUILDINGS.

The Swansea Corporation invite architects to submit, in open competition, designs for new municipal buildings.

Assessor: Mr. Henry V. Ashley, V.-P.R.I.B.A.

Premiums: £750, £500, £300 and £200.

Last date for receiving designs, 18 January 1930. Conditions of the competition may be obtained on application to the Town Clerk, Town Hall, Swansea. Deposit £2 2s.

## Members' Column

MR. JOHN R. MOORE.

MR. JOHN R. MOORE, A.R.I.B.A., has moved from 13 Acland Road, Willesden Green, to 67 Laccelles Avenue, Harrow, Middlesex.

## OFFICE ACCOMMODATION.

PROVINCIAL Architects and Surveyors requiring a City address (near Law Courts), or office for interviews, etc., should apply to "Architect," 19 Fildon Court, Fleet Street, London, E.C.4.

SMALL Furnished Room, suitable for young Architect or Quantity Surveyor, is available in the West-End offices of an Architect, F.R.I.B.A., at an exceptionally moderate rental in exchange for small services rendered. Telephone, gas, electric light, cleaning included.—Reply Box 1690, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

## ASSISTANCE OFFERED.

F.R.I.B.A. with long established practice in West End, at present having slack period wishes to meet another with busy practice whom he could assist with complete schemes or otherwise, working at his own office.—Apply Box 5129, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

F.R.I.B.A. who has carried out important works, but whose private connection has fallen off would be willing to help another architect in general office routine, sketch, plans, etc. Frequent R.A. exhibitor.—Reply Box 1780, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

PRACTISING in West End. Associate wishing to extend present practice would welcome opportunity to give assistance to other architects or surveyors in any branch of practice. Phone: Gerard 6117; or apply Box 2597, c/o Secretary R.I.B.A., 9 Conduit Street, London, W.1.

## Minutes IV

SESSION 1929-1930.

At the Fourth General Meeting (Ordinary) of the Session, 1929-1930, held on Monday, 16 December 1929, at 8 p.m. Sir Baniaster Fletcher, F.S.A., President, in the Chair.

The attendance book was signed by 22 Fellows (including 7 Members of Council), 23 Associates (including 1 Member of Council), 2 Licentiates and a large number of visitors.

The minutes of the Business General Meeting held on 2 December 1929 having been published in the Journal, were taken as read, confirmed, and signed as correct.

The Hon. Secretary announced the decease of—

William John Hale, elected Fellow 1901.

Keith Downes Young, elected Associate 1873, Fellow 1885.

Frank Walford Locke, transferred to Licentiate Class in 1925.

and it was Resolved that the regrets of the Institute for their loss be entered on the Minutes and that a message of sympathy and condolence be conveyed to their relatives.

The following members attending for the first time since their election were formally admitted by the President:—

Mr. Austin Vernon (F.)

Mr. R. T. Beck (A.)

Mr. G. W. Knight (A.)

Mr. J. L. S. Mansfield (A.)

Mr. Morris de Metz (A.)

Mr. E. J. Symcox (A.)

Mr. G. L. Thompson (A.)

The President announced that the meeting was to be devoted to a debate on "Are Building Bye-laws Destructive of Rural Beauty" and called upon Mr. M. H. Baillie Scott (F.) to open the debate. A large number of members and visitors having taken part, a vote of thanks was passed to Mr. Baillie Scott by acclamation and was briefly responded to.

The proceedings closed at 9.40 p.m.

## ARCHITECTS' BENEVOLENT SOCIETY

(Insurance Department)

## HOUSE PURCHASE SCHEME

(for property in Great Britain only).

The Society is able, through the services of a leading Assurance Office, to assist an Architect (or his client) in securing the capital for the purchase of a house for his own occupation, on the following terms:—

## AMOUNT OF LOAN.

Property value exceeding £666, but not exceeding £2,500, 75 per cent. of the value.

Property value exceeding £2,500, but not exceeding £4,500, 66½ per cent. of the value.

The value of the property is that certified by the Surveyor employed by the Office.

## RATE OF INTEREST, 5½ per cent. gross REPAYMENT.

By means of an Endowment Assurance which discharges the loan at the end of 15 or 20 years, or at the earlier death of the borrower.

## SPECIAL CONCESSION TO ARCHITECTS.

In the case of houses in course of erection, it has been arranged that, provided the Plan and Specification have been approved by the Surveyor acting for the Office, and the amount of the loan agreed upon, and subject to the house being completed in accordance therewith, ONE HALF of the loan will be advanced on a certificate from the Office's Surveyor that the walls of the house are erected and the roof on and covered in.

NOTE.—In 1928, over £20,000 was loaned to architects under this scheme, and as a result over £100 was handed to the Benevolent Fund.

If a quotation is required, kindly send details of your age next birthday, approximate value of house and its exact situation, to the Secretary Architects' Benevolent Society, 9 Conduit Street, London, W.

Members sending remittances by postal order for subscriptions or Institute publications are warned of the necessity of complying with Post Office Regulations with regard to this method of payment. Postal orders should be made payable to the Secretary R.I.B.A., and crossed.

It is desired to point out that the opinions of writers of articles and letters which appear in the R.I.B.A. JOURNAL must be taken as the individual opinions of their authors and not as representative expression of the Institute.

## R.I.B.A. JOURNAL.

DATES OF PUBLICATION.—1930.—11, 25 January; 8, 22 February; 8, 22 March; 12, 26 April; 10, 22 May; 7, 21 June; 12 July; 9 August; 20 September; 18 October.



# Journal of the Royal Institute of British Architects

THIRD SERIES

VOL. XXXVII. No. 5

11 JANUARY 1930

## Contents for 11 January 1930

	Page
PENCIL DRAWING FROM THE POCKET SKETCH BOOK OF R. NORMAN SHAW, R.A. . . . .	<i>Frontispiece</i>
ARE BUILDING BYE-LAWS DESTRUCTIVE OF RURAL BEAUTY? . . . .	143
DEBATE OPENED BY M. H. BAILLIE SCOTT [F.]	
BACH'S MUSIC AND CHURCH ACOUSTICS. By Hope Bagenal [A.] . . . .	154
THE R.I.B.A. LONDON ARCHITECTURE MEDAL AND DIPLOMA 1928. Presented to J. Murray Estlin [F.] and Howard Robertson [F.] . . . .	164
REVIEWS:	
MAXWELL AYTON AND ARNOLD SALCHER'S "WROUGHT IRON AND ITS DECORATIVE USE." By Charles Spurgeon [F.] . . . .	166
H. B. CHESWELL'S "HONEYWOOD FILE: AN ADVENTURE IN BUILDING." By Herbert W. Wills [F.] . . . .	167
NOTE ON SOME RECENT FOREIGN PERIODICALS. By Graham B. Tibbs [A.] . . . .	167
CORRESPONDENCE:	
PAPER ON RURAL BYE-LAWS. By Peteyal C. Blaw [A.] . . . .	168
OFFICIAL ARCHITECTURE AND THE DESIGN OF PUBLIC BUILDINGS. By Sir A. Brunwell Thomas [F.] . . . .	169
THE PROPOSED CHARING CROSS BRIDGE . . . . .	170
THE NEW YEAR HONOURS . . . . .	170
BRITISH SCHOOL AT ROME . . . . .	170
PROPOSED NEW BUILDING ON THE CALTON JAIL SITE, EDINBURGH . . . . .	170
ALLIED SOCIETIES:	
SHEFFIELD, SOUTH YORKSHIRE AND DISTRICT SOCIETY OF ARCHITECTS AND SURVEYORS . . . . .	171
OBITUARY:	
WILLIAM LORIE LUCAS [F.] . . . .	171
W. A. CHAMBERS [F.] . . . .	171
C. B. BENSON [F.] . . . .	171
R.I.B.A. PRIZES AND STEWARDSHIPS: DEED OF AWARD . . . . .	172
NOTES FROM MINUTES OF COUNCIL . . . . .	174
EXAMINATIONS . . . . .	176
L.C.C. REGULATIONS FOR EXCESS OF CODE BUILDING . . . . .	177
NOTICES . . . . .	177
QUERIES AND REPLIES . . . . .	178
COMPETITIONS . . . . .	179
MEMBERS' COLUMN . . . . .	179
MINUTES . . . . .	180
LECTURES AT THE A.A. . . . .	180
A.B.S. SCHEME OF INSURANCE . . . . .	180





EWELEME HOSPITAL AND CHURCH

Pencil Drawing from the Pocket Sketch Book of R. Norman Shaw, R.A.

R.I.B.A. Collection





## Are Building Bye-Laws Destructive of Rural Beauty?

A DEBATE OPENED BY M. H. BAILLIE SCOTT [F].

[Held at the Royal Institute of British Architects on Monday, 16 December 1929.]

THE PRESIDENT, SIR BANISTER FLETCHER, F.S.A., IN THE CHAIR.

**M**R. M. H. BAILLIE SCOTT [F]: The title given to the subject of our discussion to-night is "Are Building Bye-laws Destructive of Rural Beauty?" That was the title which was rather hastily chosen some time ago, but which, on further consideration, seems hardly sufficiently comprehensive for our purpose. I therefore propose to substitute as the subject for our discussion "To what extent do the building bye-laws obstruct architects who are trying to build in harmony with rural England, and is there any practical excuse for such obstruction?" I believe bye-laws were first introduced about 1850, at a time when the building art was at a low ebb. The scale of merit in those Victorian days seemed to depend mainly on vertical dimensions. In a really high-class room, for instance, you would expect as much as a 14-inch skirting board to the wall, and a correspondingly high ceiling. A low room was then considered "low" in every sense of the word. When, therefore, bye-laws were framed to improve the standard of house building, the scale of values then in fashion demanded height and height only in habitable rooms. The really important factor of floor areas was entirely ignored. A room could be as small as you liked, but it must be high. It was all part of the architectural snobbery of the times, which expressed itself in villas with lofty ceilings, and enormous windows shrouded by lace curtains.

But to-day we have an entirely different scale of values in house building. In cases where our expenditure must be strictly limited, we realise the importance of buying as much elbow room as possible for our money, instead of investing it in useless space overhead. We no longer look on old cottages as contemptible hovels suitable only for the lower orders. We actually go and live in them ourselves and prefer them to lofty

Victorian mansions. We have even discovered that they are beautiful, and we form societies to save them from destruction. And so we have this curious and inconsistent situation: on the one hand, we have an outcry for the preservation of our old villages, and on the other the law of the land as applied to buildings condemns them as dangerous to health, because their ceilings are too low and their windows too small. If the bye-laws are to be upheld, we ought to destroy every old village in the land. If the bye-laws could be made retrospective in their action, the result of their application to an old village would be that all the old cottages would suffer vertical extension, with a corresponding contraction of floor areas. The windows would be increased in size and the rooms in the roof with the five-foot sides which the bye-laws insist on would be reduced to narrow passages or disappear altogether. I must leave to your imagination the devastation that would ensue. If, then, it is agreed that the retrospective action of the bye-laws would have this disastrous effect on the cottages of rural England, is it not reasonable to claim that they must have exactly the same effect when applied to modern cottage building in English country?

To the superficial observer the charm of an old village consists in the effect of time and weather on the surfaces of the buildings. But those who have studied the matter more closely know that the essential quality is what we call scale. Everyone recognises this in the case of the human figure. We know instinctively that for every feature there is an ideal size and form, and we also know that in the child, beauty arrives when the stature and all the features are consistently reduced in scale. Superficial colouring is of only secondary importance.

And so it is with the cottage for those who have a sense of scale in building; it only becomes beautiful when it is reduced in scale in all its parts and propor-



tions, just as in the case of the child. And this the bye-laws will not let us do in the case of new buildings, though they are, fortunately, unable to apply their baneful influence in the case of old buildings. The modern bye-laws seem to assert that while excellent health may be enjoyed by those who inhabit rooms not less than 8 feet in height, if a room is less in any part than that mystic figure, it becomes dangerous to health. We should, presumably, begin to suffer in a room 7 feet 11 inches high, while those who live in old cottages with a 7 feet ceiling stand in peril of their lives!

I pointed this out to a London doctor who, one might suppose, would understand these matters, as we were admiring his beautiful old cottage sitting room about 6 feet high the other day. The same idea occurred to me in a closed motor car about 5 feet 9 inches high. We hear a good deal of the risks of motoring, but no one has yet given us the statistics of those whose health is ruined by the low ceilings which (by a strange oversight of the powers that be) are allowed in them. And what of railway carriages and the cabins of ships?

In these days many people spend the greater part of their time in these moving habitations; why should the house alone be singled out for legislation in this respect?

Or perhaps we may still look forward to the time when all new cars and trains must be 8 feet high, while an occasional antique may be seen of the original dimensions looking just as right and sensible as an old cottage does amid modern buildings. It will only then be necessary to initiate a society for the preservation of old motor cars to complete the parallel to the comic situation which exists to-day as regards cottages. In looking back on a misspent life and a career of crime involving all kinds of attempts to evade the law, it is to Cambridge that I always return in memory with the greatest pleasure. I think of it as a place where people are sensible and intelligent, and though I have built perhaps a dozen houses there with ceilings less than 8 feet high, I have not heard of any statistics announcing any increased mortality in consequence!

Statistics in such matters are not worth much. I remember a case for high ceilings being triumphantly made out based on statistics which never enquired as to which of the families concerned in this experiment opened their windows or spent their spare time out of doors.

If there is anything more foolish than the ceiling regulation, I should say it is the bye-law referring to rooms in the roof where, by insisting on a 5 foot height at the sides of the attic the floor space and cubic capacity of the rooms are needlessly reduced. It is the same ridiculous obsession with the idea of height again. There is just a glimmering of reason in the ceiling height regulation, because there is no doubt that those

who suffer from claustrophobia and feel a kind of nervous depression under low ceilings have some grievance. But we ought not to legislate for phobias, otherwise spacious and lofty rooms should not be allowed in deference to those who are subject to agoraphobia, and even railways should be abolished in consideration for those who suffer from siderodromophobia. But I do not think anyone is sufficiently abnormal to prefer living in a passage in the roof instead of an attic room. It would interest me very much to know whether anyone has anything to say in defence of this bye-law. It makes it almost impossible to use the roof space of a small cottage for bedrooms. I have always thought the old cottage is the best model for small country dwellings if the roof space can be used, and no doubt the development of the bungalow model which we deplore is largely due to this bye-law. It ought to be possible to decorate the countryside with small cottages based on the old models, instead of disfiguring it with bungalow growths.

I do not suggest that bye-laws in the country should be altogether abolished, although I could get on very well without them. I think they should deal only with sanitation of a reasonable kind, and not the sanitation of the specialist, who is apt to become a faddist. I do not think any regulations as to height of rooms are necessary, because the general tendency is always to make rooms higher than need be, nor any regulations as to size of windows, because these are usually made too large. I think a man should be free to build the kind of house he wants to build, and if he wants to have low ceilings and small windows it seems a gross infringement of the liberties of the subject to force him to raise his ceilings and enlarge his windows to meet the whims of faddists. If in the case of cottages any limitations are considered desirable, it would be much more reasonable that these should concern themselves with cubic capacity of rooms, rather than height of rooms. As the law stands, a cottage living room would pass the bye-laws if it is only 6 feet by 6 feet as long as it is not less than 8 feet in height. In cases where limitations of cost involve reduction in sizes of rooms, the bye-law insisting on height only becomes worse than useless in restricting horizontal dimensions to pay for useless space overhead.

Apart from the bye-laws themselves, there is the question of their interpretation by the local surveyor. I do not know what qualifications are required for such an appointment. The most important one seems to me to be a sense of humour. To take a case in point: Having obediently made a ceiling 8 ft. high, unfortunately there was a beam which projected perhaps 6 inches below the ceiling, and since the wording of the bye-laws was that the ceiling should not be less than 8 feet in any part, a solemn discussion ensued. The subject of this discussion, in fact, amounted to



this: was the existence of this beam a danger to the health of the occupants of the room? To anyone with a sense of humour, the absurdity of the argument would be at once apparent. But to the Dogberry type of mind who insists on being written down an ass and never sees anything but the letter of the law, it is quite a legitimate subject for discussion. And so one was driven to illustrate practically the absurdity of the situation by putting a partition under the beam and then taking it away afterwards. It seems to be very desirable, in order to escape such unintelligent tyranny, to have a Court of Appeal in such matters. Otherwise, the only redress is the quite impossible one of a kind of blackmailing legal action on the basis of "heads I win, tails you lose." The surveyor stands to lose nothing, while the building owner is involved in legal expenses and delay.

One of the worst features in connection with the bye-laws is the machinery used for their interpretation. You would imagine that some expert knowledge of building and the meaning of architects' plans would be considered necessary. But the average council is usually composed of local worthies who know nothing about building and are incapable of understanding a plan.

On one occasion I submitted plans for a house which was quite at variance with the bye-laws. They were duly passed and signed as approved by the council. Later on, the surveyor, in visiting the building, insisted on alterations. It was in vain I argued I was bound to build according to the plans approved by the council. Modifications had to be made, because my client, like a wise man, refused to involve himself in legal action. On another occasion a surveyor insisted on purlins in a roof where they were quite unnecessary, and after some correspondence I felt obliged to tell him it was no part of my business to give him lessons in elementary building construction. He seemed quite annoyed at that remark, and subsequent proceedings were marked by a distinctly hostile attitude on his part.

We are chiefly concerned now in considering the extent to which bye-laws interfere with the scale and proportions of smaller buildings, but there is another aspect of the matter, which I ought to refer to. I mean the extent to which bye-laws involve unnecessary expenditure in building. I imagine every architect feels as I do about extras, and although they give him extra fees, would infinitely prefer to avoid them. Well, it has been my experience that extras are largely due to the unreasonable demands of district surveyors. To quote a recent example, in a block of flats where, although of entirely fireproof construction with stone stairs and fireproof floors, an external iron staircase was demanded, costing £600, the unexpected extra cost so involved seemed a little absurd in a town where

nothing of the kind existed in the old-fashioned timber-built houses. Again, in altering an existing building by adding another storey, it is usually quite unnecessary to go to the expense of thickening the existing wall from the foundation upwards. In cases where sizes of joists are given in the bye-laws, these are usually unnecessarily large. I have before me the bye-laws for Weybridge, where the minimum size for a joist exceeding 8 ft. in span is 9 in. by 3 in. In a certain old cottage for a 10 feet span the 3 in. by 4 in. joists have stood the test of several hundreds of years. It is also rather absurd to fix a standard spacing for joists, as this is a matter which can only be considered in relation to the thickness of the floor boards.

Apart from the fact that the bye-laws make it impossible to build a cottage of the right scale and proportions, the implications conveyed by these regulations are deplorably misleading. In fixing a minimum height of ceiling and size of window, it is suggested that ceilings cannot be too high or windows too large, and that, in fact, a cramped and congested villa is better than a roomy cottage. If the ceilings are high more space must be occupied with the staircase, and so much more useful floor area given up. And then the factor of scale comes in again. A room which is 12 ft. by 12 feet and 7 feet high gives the impression of a good-sized room of the cottage kind, but if the ceiling is raised it begins to look like a small room at once, and the higher the ceiling the larger the scale becomes, and the more the floor area seems to shrink, although of the same dimensions.

The bye-laws reflect faithfully the spirit of base materialism which characterised the scientific mind in the nineteenth century. The bye-lawyer seems to exist continually with his nose in the drains: he gives direct encouragement to the disfigurement of the countryside with hideous little houses, and he does not realise that the cottage, when rightly built, may become one of the most beautiful things in creation.

Mr. EDWARD WILLIS (Chairman of the Council, Royal Sanitary Institute): The opening of the discussion has not been a speech against all the bye-laws, and I think Mr. Raillie Scott himself very much appreciates the advantages of many bye-laws. But he seems to be particularly troubled by those in regard to height. Many years ago, during the time that I was articled to an architect, I had a relative who owned some of these small cottages, and I remember going occasionally to collect the rents, and also that some of the rooms were no more than 6 feet high, and I wished they had been higher, or that they would sometimes have the windows open! Many of the residents did not seem to appreciate that windows are made to open, and one got six feet of congested air which had been there a week when one was asked into the room to write the



receipt. It made one wish the rooms were more than 6 feet high. I agree entirely with Mr. Baillie Scott in his remarks about the necessity of "scale." I am in agreement with him, too, that there are certain local surveyors who do not always appreciate the spirit of the bye-law so much as its letter; that is one of Mr. Baillie Scott's contentions. He not only anathematises the rural surveyor, however, but also the surveyors in the membership of the Royal Institute in speaking of large flats with a fire-escape staircase. Even in that respect I am in sympathy with the necessity for providing for the safety of the people who have to live in those flats; and if we were to take Mr. Baillie Scott's views too literally, we should have the countryside filled with dwellings that he himself would be very grieved about, because bye-laws were instituted for the protection of the public from the jerry-builder. If you have no bye-laws, the speculating or jerry-builder is entitled to build as Mr. Scott would wish to build, but without the necessary beauty. And if you build cottages with 6-foot high rooms without the natural artistic design, you would have worse conditions and no beauty at all; whereas in the modern cottages built with 8-foot rooms you can get beauty if you have a genuine architect designing them. I think a good deal of the opener's paper is written in a humorous vein, and is not really to be taken in earnest.

Mr. Baillie Scott spoke of the tyranny of the local surveyor; but how could we be tyrannous with architects, when we are afraid of them? When I have occasion to write to an architect, I do so in fear and trembling, thinking that unless I am very careful he will bring the weight of the whole Institute against me! But, looking on the other side of the question, architects or their staffs do occasionally make mistakes. When you find mistakes on the part of architects, it surely shows the usefulness of the surveyor's office when he goes carefully through the plans. I could mention occasions in urban district work when I have found many slips on the part of the assistants who prepared the drawings, and who had not had the necessary training. Their work was very good artistically, but there were structural mistakes which, apart from bye-laws, would have caused serious trouble.

With regard to the room in the roof, Mr. Baillie Scott mentioned that there was less floor space and less cubic space. On two or three occasions, I have made a point of staying at some of the older hotels in the country, and when the hotel has been full, I have been put into one of the attic rooms; and not only have I knocked my head against the beams, but I have turned out in the night and have felt that the room was horribly close. I do not agree with Mr.

Scott that there is more cubic space. I admit there is more floor space, but what is the good of floor space if you can't squeeze into it? Where in the attic you have a room with the walls five feet high you can use this portion for a bed, or for some of the furniture of the room, though I do not quite know what furniture you would get in there beyond a wash-stand or low chest of drawers.

Mr. Scott did not mention anything about orientation. I agree it is not in the bye-laws, but I do not think there is anything against it, or anything against the general arrangement of cottages which can lead to both effective plans and effective elevations. But again the bye-laws are not responsible, nor are the local authorities responsible for the elevations, so that the architect has this entirely in his own hands, if he can adapt the building to a suitable scale, remembering that in some cases the rooms must be 8 ft. high.

Mr. Scott's remarks are very interesting from a different point of view to that which, I agree, many of the local surveyors have; but all surveyors are not of the type suggested by him, and I feel that the indictment which has been laid down is hard on a body of men who have to cultivate the hide of a rhinoceros in dealing with councils; and they are having to work much harder than most people imagine. As a rule, the rural surveyor is one of the hardest-worked men you can come across. While Mr. Scott's experience with them has been unfortunate—and I admit that in one or two of the examples he has given their actions were absurd—he would find, I think, that the great majority of rural surveyors are particularly anxious to work in harmony with architects, and yet at the same time carry out the spirit of the bye-laws which are certainly, in most matters, very useful and I do not think in any way "Destructive of Rural Beauty."

Mr. G. L. PEPLER (Past President Town Planning Institute): I have not been briefed on this occasion, Mr. President, and I had no intention of speaking. Bye-laws are not in my province, but are cherished by my friend Mr. Shelley, who will doubtless deal adequately with the attack. I imagine he will be relieved to find that it is only a sham battle, because the only real points of attack have been the heights of rooms and the sizes of windows. And I think he will be able to show us that these points are not very vulnerable ones, since the number of rural authorities with bye-laws which deal with those matters is small. If every house and cottage were designed by Mr. Baillie Scott, there might be no need to have any bye-laws, but the fact is that the great majority of houses and cottages are not only not designed by him, but they are not designed by any architect at all.



Therefore there is a need for bye-laws. He may have a good case on the question of heights, but if we consider the question of materials, and especially the external materials which are used in buildings, it is notable that many of those who have at heart the preservation of rural England appear to consider that bye-laws should be strengthened rather than weakened.

Mr. A. N. C. SHELLEY (Ministry of Health): I am "a man set under authority," and I attend here on instructions, duly given me in writing. My principal instruction is to utter facts and not my own opinions, and therefore I shall not be drawn into giving opinions of my own, even by Mr. Pepler's provocative allusion to my supposedly "cherished" bye-laws.

The best thing I can do is to try to bring the meeting down to a basis of fact. With some of the general remarks made by Mr. Baillie Scott and Mr. Willis, and with one thing Mr. Pepler said, I may be in personal agreement; but what the meeting wants from me, I take it, is the fact of what bye-laws there are, so far as it is possible to make a statement in general terms, and without the notice of the question which would be necessary if information were wanted as to particular districts. Obviously I do not carry in my head what are the bye-laws in force in Weybridge, (which has been mentioned), but when I hear people talk of *the* bye-laws, in the same way as one would say *the* Atlantic Ocean, I always wonder what will come next; because if there is one thing to which I thought architects objected, it was the difference in bye-laws in the different districts or areas. And the profession cannot have it both ways. Either the bye-laws are unreasonably uniform, or unreasonably diverse; they can hardly be both, and in so far as they are diverse, you cannot make general statements about "the bye-laws" as a whole. In fact, they are probably still too diverse, taking the whole country, but more uniform in most particulars than they were ten or twenty years ago. Why? It is one result of a campaign initiated by Lord Long when he was President of the Local Government Board in 1905, carried on by Mr. John Burns in 1912—in each of those years a circular was issued to local authorities urging that the bye-laws be brought up to date, and this was again done by the President of the Local Government Board in 1918, and again by Sir Alfred Mond in 1922. So there has been a continuous policy covering a generation, to bring up to date the bye-laws of local authorities. The result has been an extraordinary success. Except in three or four places, whose bye-laws were made about the time of the outbreak of war and are now on the point of being brought up to date—all large towns and

none of them in the area of Mr. Baillie Scott's operations—and with the further exception of some simple bye-laws relating to sanitation in rural districts, the former bye-laws have been brought up to date, often in the last four or five years.

In 1850, which Mr. Baillie Scott gave as the date when the making of bye-laws began, less was known about these things than we know now. Model bye-laws, issued from the Local Government Board were drawn up in 1877, the Board having come into existence in 1871. That series was drawn up by my predecessor of that date, in consultation with the Chief Architect to the Local Government Board and the Board's Medical Advisers, and it was submitted to this Institute. I have a letter from the Institute in my room, complaining of this series of draft bye-laws, not complaining of its being too stringent, but that it was not stringent enough, and urging the Board not to bother about legal powers, but to run the risk of putting into the bye-laws further restrictions for which there was no legal authority. Things have moved since those days. I do not know how many times that series of model bye-laws has been revised and reprinted since 1877; at present it is reprinted every twelve or eighteen months, so as to take advantage of the experience of architects, local authorities, and others. You, Sir, were good enough, at dinner just now, to put an idea into my head which is new to us; no architect had brought it before us so far. I mentioned it to Mr. Scott, our chief technical adviser in such matters, as we walked from dinner to this hall, and I think we shall ask the Minister to accept it, and that the next time the model bye-laws are reprinted the public will have the benefit of that suggestion.

And that brings me to something I wish to impress on the Institute, as I did when they asked me to give a lecture in 1922; it is that you shall let us know if you find a difficulty in architectural practice. We get extraordinarily little help from practising architects in telling us of matters where the bye-laws which are in operation are found unduly stringent or insufficiently elastic, or otherwise give rise to difficulty.

But I must get back to my basis of fact. Mr. Baillie Scott's complaints related principally to the bye-laws as to height of rooms. One would have gathered, from hearing his remarks, that in rural areas generally up and down the countryside, the person building a cottage was obliged to have the rooms 8 feet high, with 5 feet at the lowest part of rooms in the roof. I have obviously not been able to have all the bye-laws in this country examined, but I have had a sample examined, a sample of counties throughout England, then a certain number of rural



districts in each county, so as to estimate what proportion have bye-laws. From this we estimate that rather more than 50 rural districts in the country have bye-laws as to the height of rooms, and there are some 650 rural districts. So much for the spoiling of the countryside by bye-laws with respect to the height of rooms. And if Mr. Baillie Scott says he is not interested in the countryside only but in towns of the size of Weybridge and Woking—to quote those he mentioned—which are becoming suburban districts, even in those places it is exceptional at the present day to find bye-laws in force with respect to the height of rooms. There are more in the neighbourhood of London than there are in most parts of the country, except Lancashire, where there is a strong feeling among local authorities and practising architects and builders in favour of putting a limit on the height of rooms; if you exclude those areas, that bye-law is practically confined to the largest towns, where there is congestion and a limitation of fresh air. Out of more than 1,600 local authorities, I doubt whether there are more than 300 which have that bye-law in force. As to the external staircase for a stone building and for flats, this may have been under a local Act of Parliament; if there is such a bye-law in force, it is very rare. As to bye-laws concerning floor joists and timbers in buildings, which he mentioned, there again in the last few years the number of local authorities who have adopted bye-laws with respect to sizes of timbers in buildings has been very small, and where they do adopt them, it has for many years been usual for us in the Ministry of Health, and the Local Government Board before that, to insist that suitable alternatives shall be allowed; so that if sizes for joists are prescribed, the timbers must be of such and such scantlings for such and such a distance apart; and that if the timber is placed further apart, the scantlings can be altered in the other direction. Invariably facility is given for moving timbers as required.

The last point I must make is in reply to what Mr. Pepler said, that he at all events would desire to have more stringent bye-laws. It is no part of my duty to express an opinion about that, but it can at least be argued that bye-laws in many places have gone too far in the way of relaxation. Many local authorities take that view, even though others of us take the view that an undue measure of restriction drives people to subterfuges and evasions. It is not for me to-night to stand here and hold the balance; or to attempt to say how I would myself hold the balance between those views.

But, in conclusion, I will give some further actual figures in regard to the series of bye-laws made in the last few years, in substitution, be it remembered, for more stringent bye-laws which were previously in force.

I will not trouble you with the figures before Sir Alfred Mond's circular in 1922, but these are the local authorities who have brought their bye-laws up to date and have got rid of the old-fashioned restrictions since that year:—

1923	..	..	82	1926	..	..	380
1924	..	..	194	1927	..	..	177
1925	..	..	385	1928	..	..	114

I have not the figure for this year,\* but it may be less, for the good reason that the work is done.

Mr. W. HARDING THOMPSON [F.]: I join issue with Mr. Baillie Scott as to whether there should be bye-laws or not. Probably he would admit there should be some, but, on the whole, the rural districts of this country are suffering from disfigurement largely because there are no bye-laws in operation. I agree with Mr. Baillie Scott that there is a slight difficulty in designing, say, a single cottage where the height of the room should be 9 feet; but with an 8-feet-high ceiling that is not so difficult, and difficulties disappear altogether in the hands of a competent designer when there are groups of 4 or 6. As to windows, I think, after all, it is a confession of defeat on the part of the architect if he says that he must have small windows to get the effect of scale, and of dominance of mass over void. He should be able to design as large windows as the occupier of the cottage requires. Take one instance. In old villages one finds charming shop windows, which occupy practically the whole frontage of the individual unit; that is a large window, probably twice the size of the cottage window. There is the designer's task—namely, to bring the large window into scale with the main mass. So there should not be any difficulty in giving windows as large as hygiene requires, or as large as the owner thinks he wants.

There is one point which is worth bringing up in this discussion. It has a bearing on what I should call our regulations and their effect on the layout of streets. Those regulations have been applied often in an unsympathetic way to rural districts, so you find many a charming village in this country spoilt by an area covered with bye-law streets, which are not designed according to the traffic they bear, or to the area; they are too large or too small, so that the builder is compelled to sell off his land in plots with a very narrow frontage, and that leads to those nauseating rows of houses with a narrow frontage and a repetition of bay windows.

As to building bye-laws, I think there is no real difficulty facing the architect at the present moment in the bye-laws which are in existence. Rural districts suffer most from lack of bye-laws; it is interesting to hear

\* Mr. Shelley has since supplied the figure up to 31 December 1929, which is again 114. The memorandum from which these figures were quoted will be found printed at the end of the Debate on page 152.



that so many rural districts are devoid of bye-laws. Without bye-laws one can put up any number of shacks and temporary garages, etc., and they probably disfigure the countryside far more than does the isolated cottage which is built rather higher than its predecessor of a hundred years ago.

I enjoyed very much the form in which Mr. Baillie Scott put his argument forward, because it had a delightful touch of humour; but I should not like visitors to leave this room to-night without knowing that some architects, at any rate, realise the necessity for fairly stringent bye-laws to control the speculative builder, who, after all, builds 95 per cent. of the houses in the country districts.

Mr. EDWARD WARREN [F.]: I have been responsible for building a few cottages, and I have had some experience of them. In my early days, with a young family, I took what was not much more than a large cottage; it was really a small farmhouse, built thoroughly in the cottage manner, and it taught me many things, many lessons. First, it taught me that, provided the windows are properly arranged, a room 7 feet 1 inch high was a healthy and cheerful room, since the windows were carried close to the ceiling. If you have a room 12 feet high and the windows 3 feet down from the ceiling, there will be a stagnant pond of air below the ceiling. In building myself a house I escaped the bye-laws, because they were instituted three months afterwards. So I did what I liked; I made my study 8 feet 3 inches high, and put the windows close to the ceiling, and it is a delightful and healthy room to live in. But that escape from bye-laws was luck, for many of them were absurd bye-laws. They stipulated for a height which was costly and unnecessary; they have since been modified. Bye-laws should always have reference to the locality in which a building is to be placed, and the materials of which the structure is to be built, the great point being to get the top of, at any rate, one window in each room close to the ceiling; then the height of the room such as I have mentioned would be good enough for most people. I went through the village in which my farmhouse was situated, to measure the ceilings. Many were less than 7 feet; 7 feet 1 inch was about the average height, and the people seemed as robust and healthy as they well could be. There are many other points which architects hardly need telling about, or that they should avoid; but some people doing cottage work have neither the name nor the reputation of architects. I refer to such things as nailing thin boards outside a brick house to make it look like a half-timbered house. It may look like it in a fog, or in the dusk of evening, but in the bright light it has a sorry effect.

I went the other day to see my country builder; he builds very well. But I saw some horrible cottages which he had recently put up, and they had a dreadful terra-cotta dragon on the end of each gable. I said to

him, "Are you responsible for those beastly dragons?" He said "Some say, 'Can't you put in a bit of taste?'" So his idea of "taste" is a half-guinea dragon. I could not very well tell him "For every dragon you leave out I will give you so much," or "For every one you put in I will kick you." Yet he is an honest builder and does extremely good work, under direction, but he panders to the demand for these dragons and anything else that his customers "will have." That is what he calls "taste." This sort of thing is what is doing so much to ruin the aspect of the newer cottages being built on the byroads of England. What we have got to deny *in toto* and to fight shy of is the pride which apes humility, or the humility which imitates pride.

Mr. J. W. WILTON (Guildford R.D.C.): As surveyor to a Rural Authority, I would like to say a word. When I was fortunate enough to receive your invitation, I wondered what Mr. Baillie Scott would have to say on how bye-laws could be destructive of rural beauty. We can see that Mr. Baillie Scott has a real objection to putting 4½ inch brickwork behind tiling, and therefore I join issue with him. In our roofs we have nothing but rafters and battens, and when you bring down the tiles they still require 4½ inch brickwork behind, and that seems unnecessary. That is the only point on which I think Mr. Baillie Scott might have a grievance.

As to the height of rooms, probably not 1 per cent. of the rooms show a height of less than 8 ft. So even architects think 8 ft. is reasonable, having regard to the healthy living there. In a farmhouse you will get 7 ft. rooms, because the structural conditions make it impossible otherwise. But what if you arrive at a room which is only 6 ft. high? Mr. Baillie Scott would lower his floor so as to get his 6 ft. 10 in.; why? It is because he thinks it is desirable from the health point of view.

As to windows, the bye-laws say a window area of not less than one-tenth of the floor area. I do not think anyone would suggest, for the comfort of anyone living in that room, that it is too much. Most architects would try to get that if it was possible.

Something has been said about the interpretation of the bye-laws by the rural surveyor. It is said to be due to a sense of humour. I think most of them have got a sense of humour. But, the bye-laws having been made, it is the duty of the council surveyor to see that they are carried out, whoever is concerned. That ought always to be present in the mind. It has also been suggested that the legislation has been hard on the individual. It always is, but we have got to abide by it. I stress particularly the height of the rooms, yet the Ministry of Health representative has told us that very few bye-laws have mention of the height the rooms are to be, and the Ministry will not now



approve of bye-laws mentioning the height of rooms unless this provision already exists in the bye-laws. And I think that is the right attitude, because when you say 8 ft. or any other height, it is the duty of the local authority to stick to that. It would, however, act unfairly to insist on 8 ft. when you are altering old buildings. If you can get 7 ft. or 7 ft. 6 in., there is no hardship. I have lived in rooms of both heights. They cause no oppressive feeling. But when you can get a height of 8 ft. it is not too much.

Major H. C. CORLETTE [F.]: I do not at all agree that 8 ft. is necessary for the height of a room in cottage building. Many architects, I am sure, make their rooms 8 ft. because they think as it is a bye-law regulation they must obey. Many, if they felt they were free to do so, would make these rooms sometimes no more than 7 ft. from floor to ceiling. It is sufficient for health and for lighting, also for ventilation purposes.

Something has been said to-night about the size of windows. It was said that one-tenth the area was necessary for them; I do not think it is. You can get all you want, in the way of health and air in a cottage building, with less than one-tenth for windows. Another point concerning the size of windows is that you may make your windows much too large, because, if you have too much glass in a small room you will lower the temperature; you will make it necessary for the unfortunate people who occupy these rooms to light fires when otherwise they might have done without them.

Also the last speaker mentioned  $4\frac{1}{2}$  inch brickwork behind a tile hanging, and I understood him to say that now we are relieved from that expenditure. I had an experience some years ago in which I ventured to suggest it was unnecessary, but the local authority was so insistent that it was necessary to spend money which was wasted in putting in this  $4\frac{1}{2}$  inch brickwork behind the tile hanging, in addition to other and sufficient precautions.

Mr. Shelley, in his remarks this evening, spoke about "Model Bye-laws." It is going back to ancient history to some extent to mention what were called the "Model Bye-laws." I do not know if I am right, but I understand the "Model Bye-laws" were drawn up to apply to London conditions, and were adopted with little or no revision for use in rural areas. (Mr. Shelley: No.)

Another matter mentioned was the artistic side of cottage building. I think it is unfortunate that so many people in this country should suppose that an architect, because he has some idea of trying to do things in what is called an artistic way, should be at once put down as a person who cannot be practical because he does think in terms of proportion, of scale, and of design. Every member of this Institute, I feel certain, looks

at his work first of all from the practical, the structural point of view, and he never leaves out a staircase. That is a fairy tale which was told by our grandmothers, and it is entirely out of date at the present time. The architect is not a man who "draws plans," as some people say; he is a practical man who designs buildings, who constructs and builds buildings; he does not "make designs" which cannot be carried out structurally. Reasonable bye-laws are necessary for the protection of the community. But at present they carry little real guarantees of good building, and none against the vulgarities of third rate design.

Mr. PERCIVAL BLOW [A.]: I am afraid this discussion must have seemed disappointing to those who have come from the country, and who hoped they might hear something about reducing the restrictions which are put upon us by the local bye-laws. We have only heard about the height of rooms, and the rooms in attics having ashlarings less than 5 ft. I ask what kind of furniture it is suggested can be put into such a room, the sides of which are less than 5 ft. in height. Is a bedstead to be put against this low wall? We have a representative of the Ministry of Health here to-night, and he will go back and say we architects are not complaining about anything. We have a good deal to complain about. Because a house happens to be a few feet short of the required distance from the next we are not allowed to put a thatched roof upon it. We appear to have confined the discussion to the artistic side of the treatment of these cottages in rural areas, and I am disappointed that the whole question has not been raised.

Mr. R. WYNN OWEN [A.]: Carrying my mind back to the country cottages with which I was familiar in my youth, which were built long before the days of bye-laws, I cannot but think that the bye-laws have been of great assistance in securing the essentials of health to the people. Doubtless those old cottages were admirable, but their occupiers, having no idea of the principles of hygiene, abused them, and lived in stuffy rooms, never opening the windows. If they did, the windows were too small. I do not think bye-laws need be a bogey to the architect, but they are a restriction to the man who builds from the speculative point of view. As to the bye-laws being an impediment, I think Mr. Baillie Scott, by his works which for a quarter of a century have been a joy to all of us, has himself refuted the arguments which he has put before us this evening. No one can say that Mr. Baillie Scott puts up anything inferior, from the artistic point of view, to what we saw and admired in the old cottages. Works of his which doubtless have been carried out strictly in accordance with the bye-laws have yet produced the very thing we all admire in old work.



Nevertheless, one does frequently, in practice, come up against peculiarities which one chafes at, and that was especially so in one's younger days. I have a vivid recollection of a case in which I had to make an addition to a house which stood in a rectangular piece of land about half an acre in extent, one side terminating at the sea and looking over the Irish Sea for a distance of about 200 miles. It was in such a position that, as I did not wish to interfere with the front elevation, I had to encroach upon the space at the rear of the house. I felt it was not strictly in accordance with the bye-laws, and therefore sought an interview with the local surveyor. I was very much struck by the man's attitude. I tried in vain to persuade him there was a superabundance of air space on the front and 200 miles of open sea at the side. He simply said he must have so much air space at the rear. That is the sort of thing which architects chafe at. We had to alter our plans. We got over it in another way; but it was a case in which we came up against the unreasonable enforcement of the rigid letter of the bye-laws. As a matter of common sense the letter of the bye-law might have been relaxed in this case. Doubtless there are many architects who would build in an admirable manner without any restriction from bye-laws. Mr. Baillie Scott, for instance, but when we consider that a very large percentage of the work that goes up in this country in the way of small rural houses and cottages is carried out by men who have not the training of architects, we must agree that it is essential that there should be some definite regulations to keep such people in control, and so the need for bye-laws is apparent.

Mr. ARTHUR KEEN [F.]: I think that the difficulty which presents itself to the framers of bye-laws is, that you cannot legislate for every possible contingency. It is obvious, for instance, that if a tenth of the floor space for windows is suitable for the window area on the ground floor, it is more than is necessary on the first floor, and still more than is necessary on the top floor; and if the amount of light is right for a south window, it is not enough for a north window. You cannot so frame bye-laws that they will meet every detail. I have a friend who is an official in a Government department, and he told me that he spends much of his time trying to get round the law to meet particular cases. It is true, as Mr. Scott says, that an 8 feet or 8 feet 6 inch room is unnecessary. I have built many cottages with rooms 7 feet 3 inches, and much of my house on the ground floor is only 7 feet 3 inches, and the best rooms 7 feet 9 inches, and I do not think there is anything extraordinary about them; they are comfortable and light. We have been told by Mr. Shelley that the question of height is left out in bye-laws in many cases, and I think it might be left out in all cases. It is not likely that people would go to unreasonable

limits in the matter of height of buildings, in their own interests; they will make rooms so that it is possible to use them in comfort, and if they do not do so they will suffer in pocket when they sell the buildings. In support of what others have said, I agree we have suffered more from the lack of bye-laws in the matter of rural beauty than by the operation of bye-laws; it is in places where there are no bye-laws that the worst things are done; cardboard houses and sham antique cottages are put up in places where there are no bye-laws, and it is desirable, in the interests of everybody, to secure a certain minimum standard of building. It is a poor minimum at the best, but it is rather a disaster than otherwise if we are left to do just as we like. Those who are well disposed will do something good, but those badly disposed will do something so unutterably bad that one would regret the lack of bye-laws to restrain them.

Mr. Baillie Scott only complained of two things: one was the question of the height of rooms, the other the question of the size of windows, and there is not very much to complain of, I think, on either ground. He manages to put up buildings which are very attractive, and I do not think any of us have suffered much from the disabilities imposed by regulations. I hope we shall not agitate for much reduction in the standard which has been set up.

Mr. W. J. H. LEVERTON [F.]: Mr. Baillie Scott referred to the height of ashlar in attics, but not the amount of flat ceiling which the bye-laws required. In most districts you must allow half the area of the room, which is reasonable, but some of the councils require a flat ceiling two-thirds the area of the room, which is excessive. One of your predecessors, Mr. President, suggested that all bye-laws should be abolished, and that an Act be passed compelling everyone about to build to employ a competent architect.

Mr. A. H. BARNES [L.]: I think it is a pity we have devoted so much attention in this discussion to the height of rooms. I think the most irksome of the bye-laws are those which refer to stability. We look at these questions from our own particular point of view as architects, but the bye-laws are framed not only for architects, but more particularly for the builders. In fact, bye-laws are to protect people from those who are not capable of building, and they are framed for the worst cases. In the eyes of the law, I think, architects do not exist, and it is impossible to have bye-laws which refer to one person and not to another. The sooner it is acknowledged that there are such people as architects and that they are not to be tied down to the same level as jobbing workmen the better.

The PRESIDENT: We have had a most interesting discussion, and I feel sure I am voicing your sentiments if I suggest we pass a very hearty vote of thanks to Mr.



Baillie Scott for reading us his opening paper, and for having called forth such an interesting discussion.

Carried by acclamation.

Mr. BAILLIE SCOTT, in reply: So many different points were raised by the various speakers that I shall not have time to deal with them all. But I would refer specially to one dealt with by Mr. Shelley: he said there were many districts in which bye-laws are not in force. I can only speak from my own experience. I am reminded of a verse of Kipling's about the toad beneath the harrow:

The toad beneath the harrow knows  
Exactly where each toothprick goes;  
The butterfly upon the road  
Preaches contentment to that toad.

I may liken Mr. Shelley to the butterfly: he preaches contentment. I may have been unfortunate, but in practice in all the districts I have dealt with I have been worried by the conditions as to height of ceiling and have had all the usual trouble with the surveyor.

And I would like specially to refer to the surveyor who spoke. I am afraid I said something rather unkind about surveyors: I did not mean it as a general statement. I have come across surveyors who are perfectly delightful, who have even said to me "You may do anything you like."

It has been said that in places where bye-laws do not exist we have all sorts of shacks, sheds, etc. Well, I have always been inclined to think that if building has got to be a disease at all, it is better for it to be a temporary disease than a chronic one; therefore as these shacks and sheds will all disappear very shortly, I would prefer those to a set of thick walls and general solid

ugliness which you would otherwise get, and would never get rid of.

One speaker mentioned shop windows in cottages. I delight in these old shop windows, but I think they should have sweets in them to make the thing look right!

The SECRETARY (Mr. MacAlister) read the following letter from Mr. Guy Dawber:

18 Maddox Street,  
Hammer Square,  
London, W.1.  
14 December 1929.

MY DEAR PRESIDENT,—I much regret that a previous engagement will prevent my being at the meeting on Monday coming to hear Mr. Baillie Scott's paper—on a subject that much interests me.

I have felt, and many others with me, for years past that these bye-laws—made originally for crowded towns and cities—in their application in rural districts have done far more harm than good, certainly as affecting the appearance of new buildings—the regulations as to height of houses, sizes of windows, ruining the proportions and scale, factors which either make or mar the smaller buildings especially.

I wonder how many folk realise that hardly one of the old cottages throughout the country which we all admire so much could be built to-day, as they contravene these absurd bye-laws.

I hope in the near future drastic revision will take place to get them altered and enable houses to be built without their appearance being ruined unnecessarily.

—Yours sincerely,

(Signed) E. GUY DAWBER.

## Memorandum\*

*Revision of bye-laws with respect to new streets and buildings, or with respect to new buildings and certain matters in connection with buildings.*

ATTENTION IS DRAWN PARTICULARLY TO THE FIGURES AT THE END.

The note on the back of the circular of the 1 September 1922 (after mentioning that copies of the model bye-laws for drafting purposes can be obtained without charge from the Ministry, and that extra copies of the circular and of the model bye-laws can be bought directly, or through any bookseller, from H.M. Stationery Office) explains the scope of the three relevant model series as follows:—

"The model bye-laws on this subject are:—

"*Series IV*.—The full urban model for large towns, industrial areas and other thickly populated districts;

"*Series IVa*.—The rural model (new buildings and certain matters in connection with buildings only) intended primarily for rural areas;

"*Series IVc*.—The intermediate model, for parts of rural districts which have become urban in character, or for sparsely populated and residential urban districts, small towns, etc."

Local Authorities who are considering the revision of

existing bye-laws, especially if they have not yet made up their mind how to proceed, may like to have the following brief historical notes.

1871. The Local Government Board was created by the Local Government Board Act, 1871, and thereby became the confirming authority for bye-laws under the Local Government Act, 1858, instead of the Secretary of State.

1919. In 1919 the Board's powers and duties were transferred to the Minister of Health by the Ministry of Health Act, 1919.

1875. In 1875 the Public Health Act of that year re-enacted the provisions of the Local Government Act, 1858 (under which bye-laws on this subject were made) with various amendments.

1877. In 1877 the Local Government Board issued their original model series of bye-laws for use under section 137 of the Act of 1875. Various alterations were made in this model series from time to time during the

\* See page 148.



remainder of the century, and additional or substitutional clauses were issued as experience suggested.

1890. Section 23 of the Public Health Acts Amendment Act, 1890, gave rural authorities certain limited powers to make bye-laws without the formalities attendant on their doing so under the Act of 1875, and extended the powers of urban authorities.

1901. In 1901 the rural model was issued for the guidance of Local Authorities who derived their power of making bye-laws from the Act of 1890. Between 1890 and 1901 it had been necessary for these authorities to frame their own proposals without the aid of a model, or to select clauses within the limit of their powers from the full "urban" series, and thus the issue of a specifically "rural" model may be said to mark the first definite and public step in what the Departmental Committee on Building Bye-laws subsequently called "the development of the Board's policy in favour of less stringent bye-laws."

1903. In 1903 the urban model was entirely recast, various alterations and supplementary clauses which had accumulated since 1877 being brought into the text.

1905. In 1905 the intermediate model was issued.

1906. In 1906 the Board issued a circular to all rural authorities, requesting those who had bye-laws in force of a more exacting type than the rural model to consider whether they could be reduced in scope.

1912. In 1912 the Board issued a further circular to all Local Authorities, urban and rural, urging more strongly that any bye-law of an old-fashioned and restrictive type should be brought up to date. In connection with the issue of this circular they gave directions for the three series of model bye-laws to be again completely overhauled.

Since that date it has been customary to reprint a small stock only (enough to last for a few months at a time) so that any suggestions of general utility arising from the latest experience of Local Authorities (or otherwise) may be incorporated in the models without delay.

N.B. In this way considerable alterations have been made since 1912, but the editions of 1912 marked so thorough a revision of the models previously in use that they may be treated as the starting point for all subsequent issues.

1914. In 1914 the President of the Local Government Board set up a Department Committee "to consider the control at present exercised in England and Wales over the erection of buildings and the construction of streets by means of bye-laws and local regulations, and their effect upon building and development, and to make recommendations."

The work of the Committee was interrupted by the War and their report was not presented until November 1918.

1918. Earlier in 1918 the Board had issued a memorandum which defined their own policy as follows:—"It may be assumed that the Board definitely desire the repeal

N.B. of all series of bye-laws made before 1900, and at least the examination and amendment of all those made between 1900 and 1912. Even bye-laws made since 1912 may in some cases . . . usefully be reconsidered and relaxed."

1918. The Departmental Committee, reporting later in the same year made a similar recommendation, to which the Minister's circular of 1 September 1923 called attention. Their main recommendation was carried

1923. into effect in section 13 of the Housing, etc., Act, 1923 (since re-enacted as section 101 of the Housing Act, 1925).

At the end of this memorandum an account is given in tabular form of the progress in getting rid of old-

fashioned bye-laws since the circular letter of 1912 and the new editions of the model series in that year. Any series confirmed in 1912 itself might be based upon earlier editions of the model, and therefore confirmations in 1912 are excluded from the table below.

In the years following 1912 there will no doubt have been a few series confirmed which had similarly been begun before the editions of 1912, and some series made by Local Authorities, who, on account of marked increase in population or other local reasons, considered that it was necessary to impose additional requirements. These have, however, been few and it

N.B. may be taken that almost all the bye-laws confirmed since the end of 1912 have taken the place of more exacting provisions previously in force in the same districts, and therefore form part of the modern movement for reducing rather than increasing the restrictions imposed by means of bye-laws upon building and development. Some of them even take the place of local Acts of Parliament controlling building, which the Local Authorities concerned have abandoned (procuring their repeal by a fresh local Act or by Provisional Order) so as to secure the elasticity of modern bye-laws under the Public Health Acts.

The following table gives the number of new series of bye-laws based on one or other of the three model series mentioned at the beginning of this memorandum, confirmed in the years mentioned:—

1913	..	35	1922	..	30
1914	..	100	1923	..	82†
1915	..	69	1924	..	194†
1916	..	18	1925	..	185†
1917	..	18	1926	..	180†
1918	..	6	1927	..	177†
1919	..	11	1928	..	114†
1920	..	6	1929 (up to and including 21 December)	..	114†
1921	..	12			

Each of the years from 1923 to 1926 thus showed a very great advance: 1924 passed the combined total of the two previous best years (1914 and 1923) for the removal of restrictions upon building; 1925 all but doubled the figures of 1924 and surpassed the combined total of the ten years before 1923; 1926 would have surpassed 1925, had it not been necessary in the last week of the year to send back to Local Authorities several series of bye-laws for the correction of errors which ought to have been found and corrected before the bye-laws were formally adopted and forwarded for the Minister's confirmation.

The drop in 1927 to 177—itsself a noteworthy figure—means that the task, of bringing up to date bye-laws of an obsolete type, was already nearing completion at the beginning of the year. At the end of 1927 there were hardly any districts with bye-laws of older date than 1913. In the second half of 1927, most of the Local Authorities whose bye-laws were made between 1912 and 1922 were asked to consider those improvements which experience suggests: they have in general expressed themselves as willing to bring their bye-laws up to date, so as to encourage the country's trade by removing obstacles to the use of modern methods and materials. Detailed analysis of the confirmations for the last few years shows a tendency for the rural model to be adapted rather than the intermediate, and the intermediate rather than the urban, so that the movement in favour of greater freedom is even stronger than appears from a statement of the totals.

Ministry of Health,  
December 1929.

† A few series are transitory—e.g., assuming a town-expired series of bye-laws for a few months pending their revision, to make some small amendment which cannot fairly be counted part of the general movement.



## Bach's Music and Church Acoustics

BY HOPE BAGENAL [A.], GODWIN BURSAR.

IN Germany, "architecture" in the sense of *Raumkunst*, or the art of enclosed spaces, is closely linked with music. Behind the eighteenth century concert room tradition already discussed\* there lies the music that had as its home the Lutheran church, with its peculiar acoustics.

At the Reformation changes affecting church acoustics were made in two kinds. First, German as a language took its place beside Latin in the office of the church, and, secondly, side galleries were added to the churches in addition to the west galleries already existing, so that congregations were increased in proportion to air volume, and therefore reverberation was correspondingly shortened.† Medæval Latin as a language for song provides a beautiful series of tones for a Gothic church with a long reverberation; it has massive open vowels with the most delicate consonant divisions; it is homogeneous in its refinement and strength. Consider in the B Minor Mass the soprano word *unigenite* and then the shout of *Sanctus* by the whole choir. German, on the other hand, while retaining a grand series of open vowels, has in addition a great number of contrasting consonants. Compare in the old carol the words *Puer natus in Bethlehem* with *Ein kind geboren zu Bethlehem*. The latter as a tone sequence is more vivid and more punctuated. All that seems harsh to English ears in the spoken German falls into focus in song or oratory; the language seems to have golden vowels and steel consonants.

This is not fanciful. There is a particular sound quality that can be defined as "carrying power." It has not to do with intensity or amplitude, but arises from the fact that a particular range of pitch is more audible to the human ear than the rest of the scale. Now, sounds having pitch-components within that range can be heard better than purer sounds without such pitch-components. It is this fact that causes the well-known carrying power of syren noises, and explains why a *staccato* passage on a horn or reed instrument can be heard more clearly in a cathedral than the same passage on strings. It is quite possible to impart a reed tone to the voice, as in the case of the Vatican choir, and such a tone increases the audibility of the direct sound besides causing a less reverberation.‡ The acoustic effect in music of the German *z* and *sch* sounds is something similar; not only do they carry the sense in a large building, but they also modify

vowels and transition tones. They influence what Byrd calls "the life of the words." Thus they have considerable instrumental value, and must have contributed to the development of oratorio and cantata in the church.

But Latin was not superseded in the Lutheran church services. Luther, unlike Knox and Cranmer, was a musician, and preserved much of the Holy Office in Latin—namely, Kyrie and Gloria, the Credo, the Horæ and Magnificat. "Latin" and "music" were the two important subjects taught in the schools. Latin was the language of manners and of public address, and the monumental Latinity of the German educated classes can be seen, well on into the eighteenth century, in Bach's own letters. This meant that congregation and musicians were accustomed in church to both sets of vowel tones—the German and the Latin—and also that choral works were composed in both. Bach wrote comparatively little to Latin words as compared to German, but that little contains the B Minor Mass, in which the great Latin choral tradition of the Middle Ages seems to culminate. In Bach's work and in St. Thomas Church at Leipzig the Latin Mass and the German Cantata existed for a while side by side. But the dramatic value of German and also the whole development of orchestral instruments tended to reinforce the Cantata and Oratorio. Orchestral instruments had invaded the German church probably with the early Gospel or New Style "Motet" music but owing to acoustic causes they were able to remain there and take their place in a rapid co-operative development that culminated in the west gallery of the Thomaskirche under Bach. The orchestral introduction to the Cantata was probably the earliest purely orchestral composition.§ But in the choruses and hymns the instruments were not mere accompaniments to voices: they were true parts and had to be heard distinctly. The character of Bach's compositions as works of art lies in a close thematic intercourse between voices and instruments. In his double choruses with instrumental accompaniment each voice has a melody, each chorus is complete in itself, the instrumental parts together form a unit, and the whole is a grand harmony.

Also instruments were developing technically and were the object of attention. Master musicians were often skilled instrument makers and builders. As an

\* R.I.B.A. JOURNAL, 21 September 1929.

† Reverberation—the time taken for a sound to die away in any room after the source has ceased—can be measured in seconds; it varies inversely as the absorbing power, and directly as the air-volume.

‡ A less reverberation is caused because high-pitched com-

ponents are relatively more absorbed by ordinary wall-surfaces than are low-pitch components; this is shown by the Sabine curves.

§ Bitter, *Life of Bach*, Abridged translation, by J. Kaye Stuntleworth, 1873, P. 45.



instance of this I can only mention here Bach's own practical craftsmanship in organ building and organ specification, and his designing of new instruments such as his *viola pomposa* and *fute clavicebale*. The significance of this is that instrument makers, especially organ builders, inevitably acquire some knowledge of room acoustics, and Bach himself had a reputation in this respect; on a visit to the Berlin Opera House in 1747 he is said to have remarked upon the whispering gallery of the *salon* and foretold its effects.

That Bach was sensitive to acoustics is also suggested by Dr. Sanford Terry as a reason for his strong

remember that the works were performed as soon as written.

What kind of building, therefore, was St. Thomas'?

The church has considerable character. It is as large as a small cathedral. The plan and section are given in Figs. 1 and 2, and views in Figs. 3 and 4. The acoustic analysis is given at the end of the article. The church is a late Gothic, three aisled building of Augustinian foundation with level vaults, no transepts, and a narrow altar-place or chancel set not in the same straight line as the nave. It was dedicated in 1496, and in 1539 was taken over by the Reformers, who removed

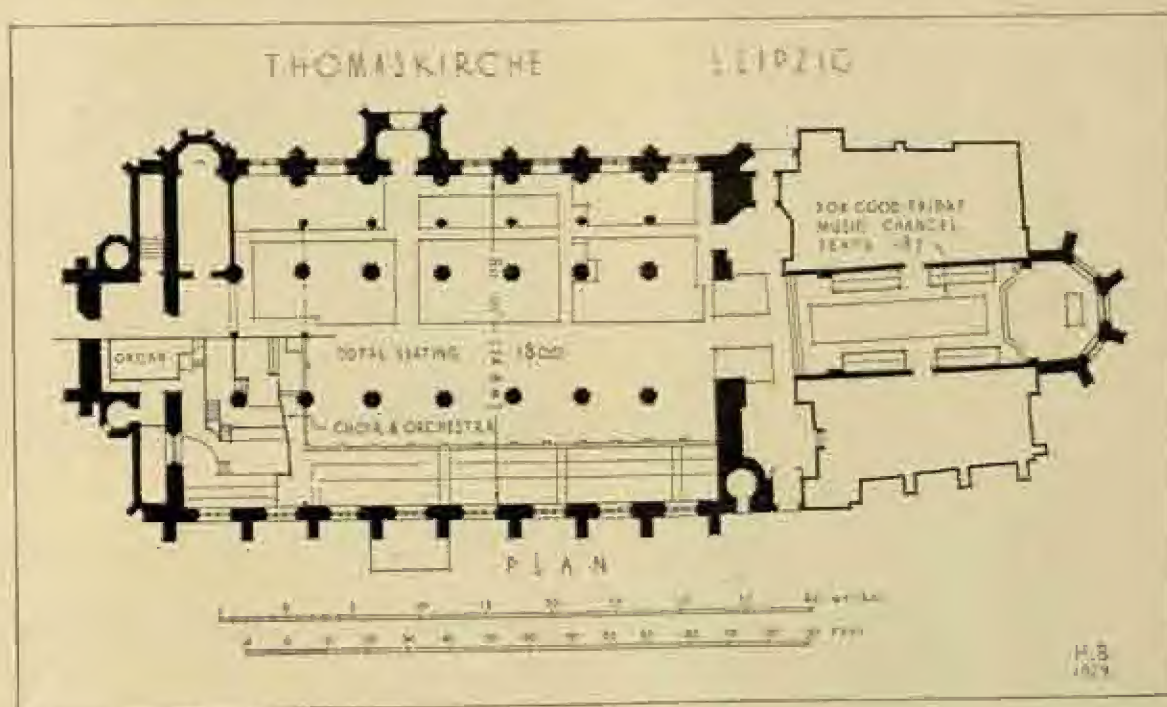


FIG. 1.—LEIPZIG, THOMASKIRCHE. THE PLAN

preference for the Thomaskirche as compared to the Nikolaikirche at Leipzig.\* He conducted music in each under the terms of his Cantorship on alternate Sundays over a period of twenty-seven years, and wrote roughly a new cantata every month. Bach "composed at least 265 Cantatas during the twenty-seven years of his Cantorship."† More significant still, Dr. Terry is of opinion that most of, perhaps all of, his large works were composed for production in St. Thomas'. The reaction of the church as an instrument upon the composer is obvious, and more especially so when we

choir-screen and side altars, and made of it a parish church under the Leipzig Municipality. Engravings of the middle sixteenth century show it externally much as it is to-day, and the shell of the church with the major interior dimensions has remained unchanged, giving an air-volume of some 640,000 cubic feet. The vaulting under the galleries suggests that the church was originally planned with a west gallery which was prolonged one bay down each aisle. This is likely, since a west gallery in German churches goes back into mediæval times, and may have developed naturally

\* The latter was a smaller building with cramped organ gallery on the south side, and from an executant point of view, though not necessarily from a hearer's point of view, would certainly have been less satisfactory.

† Terry, C. S. *Bach: a Biography*. P. 177.

‡ See Gurlitt, C. *Denkmal und Kunstdenkmäler des Königreichs Sachsen*. Leipzig. Vol. 4, p. 45.



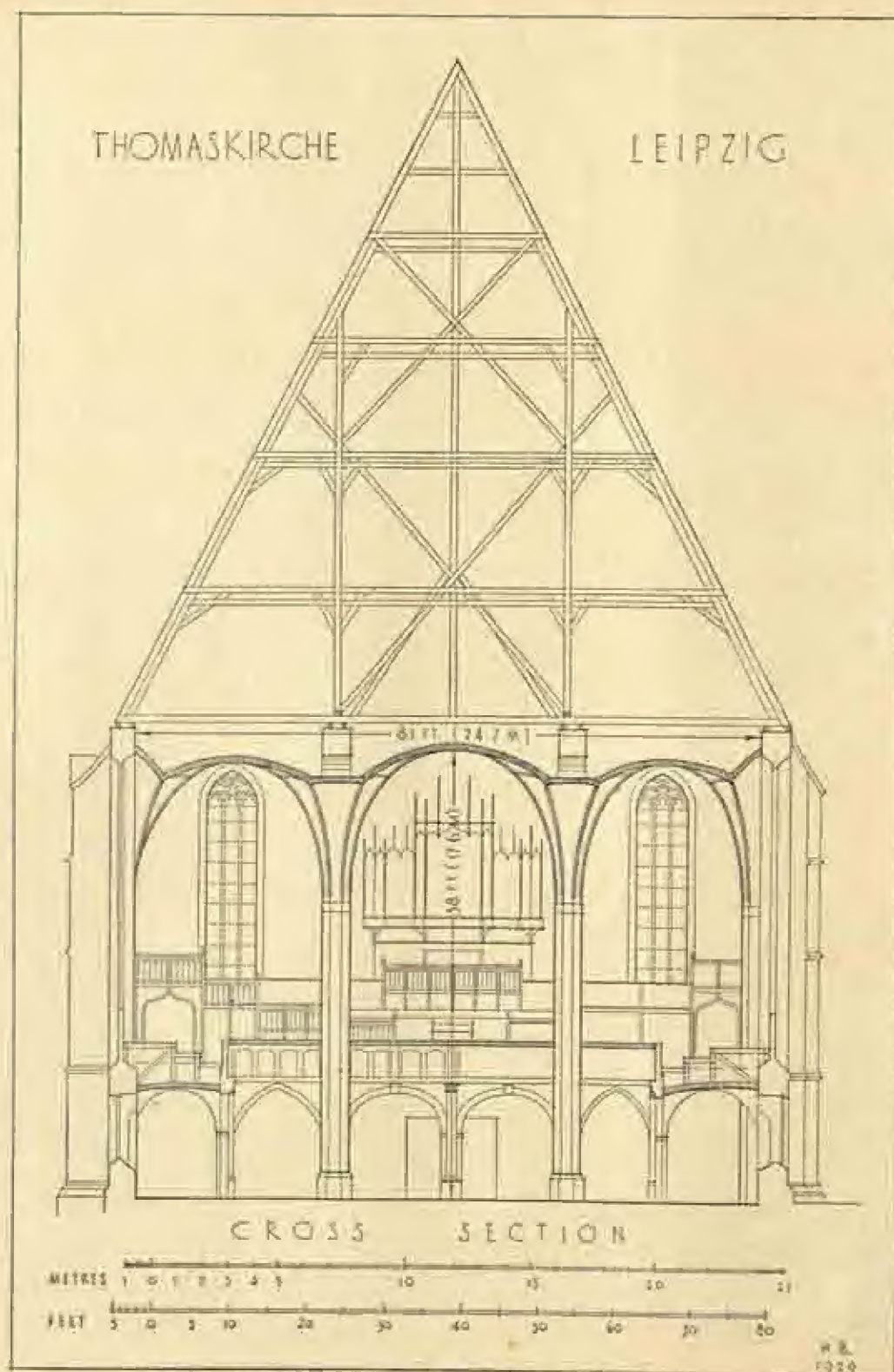


FIG. 2.—LEIPZIG THOMASKIRCHE: CROSS SECTION





FIG. 3.—LEIPZIG THOMASKIRCHE  
INTERIOR: LOOKING EAST

out of the Romanesque tribune galleries which are occasionally found at the west end. The existing gallery fronts, however, both on the west and all along the sides are of an early Renaissance design in red sandstone dating from the end of the sixteenth century. In 1707 there were further alterations, and yet more galleries were built together with small boxes and numerous staircases. A drawing in the church archives shows at the west end two tiers of galleries—the upper one holding the choir and organ, the lower used evidently as a kind of *loge*. Above the existing side galleries the same drawing shows an upper tier. This tier was probably used for private boxes. An interior view in the Stadtmuseum (Fig. 5) shows the numerous private boxes or "swallows' nests." These boxes were comfortably furnished, and within them on high festivals important Hofrathen and Bürgermeisters—connoisseurs in Passion Music—reclined at their ease behind curtains that could be slightly drawn so as just not to hide the crowds below. From these "nests" also various members of the school council kept a critical eye on the boys of the Thomasschule in the gallery, and on old Bach rising from the clavier for the

choruses with a tight roll of music for baton.\* The encroachment of galleries and boxes in this way was due to the Lutheran system of church government, which placed the church under the town council. But it also showed the importance and popularity of the church as a building, and we must remember that it created the acoustic conditions that made possible the seventeenth century development of Cantata and Passion. The building became in fact a kind of religious opera house. In Bach's time the gallery at the east end of the nave held an extra organ. The "swallows' nests" and upper tier of side boxes were swept away in 1877, at which time the present arrangement of west gallery and organ was made. But the seating in Bach's time would have been less dense, and reverberation would have been only slightly less, with a full congregation, than at present. The reverberation figure for a festival congregation of 1,800 at the present day works out at  $2\frac{1}{2}$  seconds. This figure represents a compromise between cathedral and concert room conditions. An English Gothic church of this size would have some four or five seconds' reverberation, with a full congregation, whereas a concert hall seating 1,800 would probably have not more than  $1\frac{1}{2}$  seconds with the building full. At St. Thomas' also the source of



FIG. 4.—LEIPZIG THOMASKIRCHE  
EXTERIOR: FROM THE WEST

\* Good examples of these boxes still surviving can be seen in the town church at Weimar.



sound is well placed. The position of the choir and orchestra in the west gallery enables them to make use of the level vault as a reflector, and tone is in fact directed down on the congregation without noticeable echo paths. In Bach's time the choir were slightly higher. A third point is the large amount of resonant

reason, and this fact has profoundly influenced mediæval music. But in the Thomaskirche there seems to be no special region of "response," probably due to the unicellular nave, the absence of transepts, and to the comparatively short reverberation. And we find that Bach was not restricted, but wrote his works



FIG. 5.—LEIPZIG THOMASKIRCHE: INTERIOR VIEW

wood area present—as much as 15,200 square feet. Fourthly, the church has no "note" or fixed tonality. The note of a large church—generally treble A—gives a preference to works in the key of A, and makes unaccompanied singing in any other key more difficult. The "reciting note" or "Collect tone" in any large church is generally treble A or A flat, for the same

in all kinds of keys. Also he was able, owing to the moderate reverberation of the Lutheran church or chapel, to write fugues for the organ with rapid bass parts. Many of the fugues owing to their *tempo* are lost in cathedrals, the bass parts becoming nothing but a confused roaring. If Bach had had to play in King's College Chapel, Cambridge, instead of in a Lutheran



building having a comparatively short reverberation, he would not have composed fugues with such parts. But though exact phrasing is possible in St. Thomas' the singing tone of voices is not sacrificed. On any Friday or Saturday the visitor may hear the boys of the Thomasschule singing motets and Latin Psalms by Palestrina and Vittoria.

Having noted these things I attended the bi-centenary performance of the St. Matthew Passion Music with interest. The ordinary festival arrangements of the church were followed. The chancel was filled with seats facing west. Carpets were laid on gangways. The total congregation was about 1,800. The gallery contained a choir of 150 and orchestra of 60—far in excess of the forces employed by Bach. The *continuo* was taken on the organ and the recitative accompaniments on a large harpsichord. The performance under Dr. Straube was a revelation of tone full and powerful but highly disciplined. The soloists had not to strain. The orchestra though large was grouped and trained for its parts, and the parts "were heard like silken threads instead of cotton": the tone of strings specially benefited from the large wood area. Strings and voices were complementary and thus the true architectonic design of the music was instantly perceived. Also there was no dragging. The new German church *tempo*, the fruit of an intelligent scholarship, was obvious and one recalled those words in the Bach necrology "he was very accurate, and extremely sure in the *tempo* which he generally took very briskly."<sup>\*</sup> By the congregation seated in the nave facing east the choir was not seen; the high piers and fine proportions of the church alone presented themselves, and at times music and architecture combined to reveal the genius of pure structure.

St. Thomas is in fact a home for the music and this is soon realised when we try in England to find a suitable auditory either for the B Minor Mass or the Matthew Passion Music. The concert hall performance with its Handelian technique has obvious disadvantages—the massed instruments have first to make themselves heard against the chorus and the chorus must shout against its own absorption. Yet a small choir and small orchestra in a crowded concert hall will not give the body of tone required. On the other hand, in a cathedral nave having a long reverberation although choral tone is enhanced strings at ordinary *tempo* are only articulate in the upper registers, cellos and double basses are almost inaudible, staccato passages run together, brass is generally far too loud, and male soloists sound harsh. That this is not more recognised by musicians is due to the fact that conductors situated near their sound source get enough direct sound to steer by. But it is far otherwise to listeners in the body of the church. Thus, at the Canterbury festival in August, 1929, a

velarium hung over the orchestra reduced reverberation locally to a point suitable for a microphone pick-up but the *Observer* critic (Mr. A. H. Fox Strangeways) reported as follows:—"Reverberation blurred all orchestral effects... the difficulty arose with any sort of filagree. Elgar's 'Enigma Variations' and Bach's tripartite strings in the third Brandenburg were mostly chaos."

The Bach Cantata Club had therefore a real problem in acoustics when they had to choose an auditorium, and in St. Margaret's, Westminster (Fig. 6) whether by accident or design they found the satisfactory compromise between church and concert hall conditions.

St. Margaret's, a Perpendicular church with wood ceilings and without transepts, has had an acoustic history eventful as St. Thomas'. It too was reformed not long after it was completed and its painted screen and altars were torn down. Its walls have heard Latin mass, Anglican Liturgy, and Independent sermon. As chapel extraordinary to the Commons it was known as a good preaching place and was the scene of Dr. Usher's sermons. It received from Wren in 1681 an enormous centrally placed pulpit and galleries.<sup>†</sup> It had originally an apse at the east end. In the eighteenth century organ and choir were placed in a western gallery but in the nineteenth century all galleries were swept away and the church was restored by Gothic scholars nearly to its mediæval form.

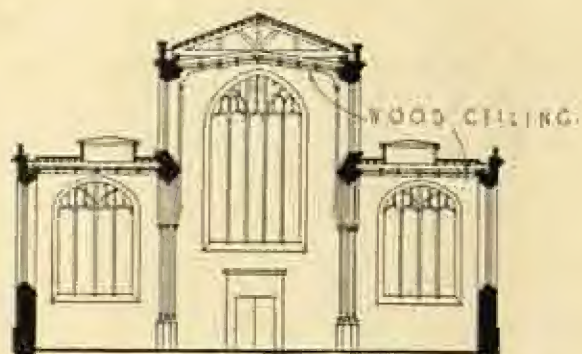
It is without a marked "note," has a very large wood area and with a full congregation of 1,000 gives a reverberation of just under two seconds. The analysis in table form is given at the end of the article. Both St. Margaret's and St. Thomas' have wood floors to the pews with air space beneath giving highly resonant areas.

The success of the church was clearly shown at the English bi-centenary performance of the St. Matthew Passion, performed by the Club on November 27th, 1929, under Mr. Kennedy Scott. Comparing the two performances—the English and the German—in retrospect, each so scholarly, one is conscious not only of two techniques but also of two interpretations of the structure of Bach's music, of two languages with their underlying vowel scales each with a different emotional content, and modifying both two church forms each with its roots in a rich but distinct mediæval culture. The Cantata Club had limited its forces to little more than those originally used by Bach. Mr. Kennedy Scott employed about 35 voices and 27 instruments including a harpsichord, and had this advantage that the instruments could make themselves heard without any effort against the voices: each instrument had to be as a soloist and the delicacy and incorporation of the performers in the dexterous counterpoint was obvious. Also the choir, under the acoustic conditions of St.

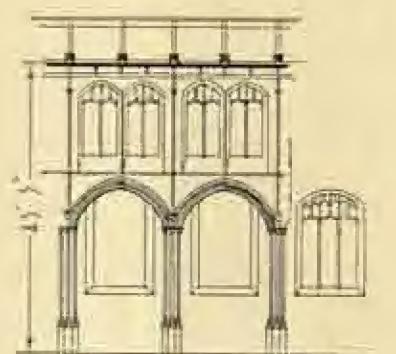
\* As quoted by Schweitzer in *J. S. Bach*, Vol. I, p. 210.

† Westlake's *St. Margaret's, Westminster*, p. 68.



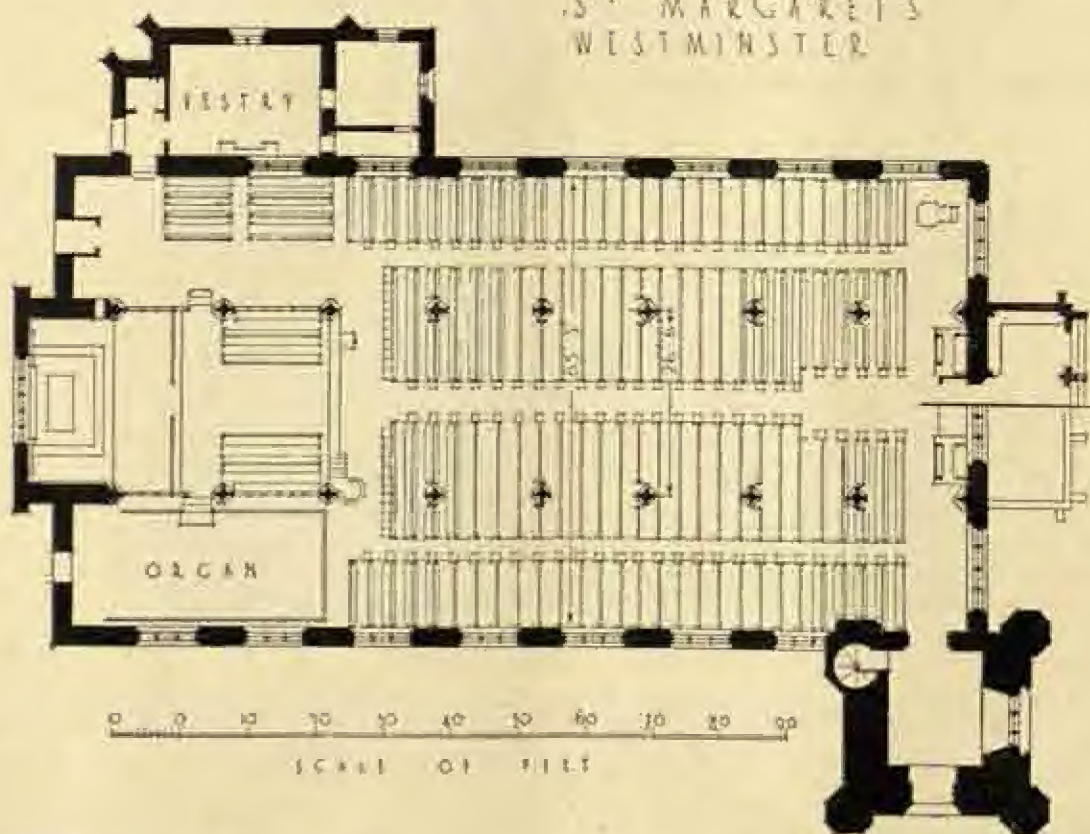


CROSS SECTION



NAVE BAYS. AISLE WINDOW

ST. MARGARET'S  
WESTMINSTER



SCALE OF FEET

FIG. 6.—ST. MARGARET'S, WESTMINSTER



Margaret's, had the "fullness" though not the "strength" of tone of the larger German choir, and this was helped not only by the right reverberation but by the longer sound path to the roof and down again which is given by a floor position of the choir. The beautiful *cantabile* tone both of soloists and chorus was achieved by making use of the church as an instrument. Thus the chorales at St. Margaret's, unaccompanied, and sung with contemplation had a beauty of escape, and were unlike the German chorales which came like great organic beats in the structure of the drama. On the other hand, the German choir position on a western gallery, with its tone delivery from the vault gave an advantage in attack. There was nothing in St. Margaret's so shattering as the German rendering of "Loose Him! Leave Him! Bind Him Not!" and of the music that follows with its ordered instrumental conflict and shouting of gargoyles as though a Gothic roof had come alive. And this intense German quality was made possible by the language. Bach is supreme in his use both of the vowel scale underlying the music and of the penetrating German consonants. Just as Milton in English verse can take a word and summon into it a

whole world of experience so can Bach when he breathes the word *bete* or sings *schmerzen*. Without this first music of the language the English version was cold, and by comparison, colourless. But this was inevitable. And this very elimination left a marvellously clear musical profile—a universality of artistic effect. Thus in more ways than one the English was the rendering of the sanctuary with its few consecrated voices, the German the rendering of the nave with its breath as of the people. We have seen indeed that the masses by invading the German church created the tone conditions under which such music was made possible, and in Germany the people, whether silent or quietly following the chorales, seem a part of the performance while the music is known intimately to a very great number. At St. Margaret's we were listeners only, in a church restored to its mediæval forms, and attentive to our singers who were making use of the original acoustic conditions much as they had been made use of in mediæval times. In both it was made evident that in such supreme musical works personal Christianity is likely to be preserved more safely against attack than formerly behind the walls of monastic fortresses.

### LEIPZIG THOMASKIRCHE REVERBERATION TABLE

Volume 640,000 cu. ft.

Seating, 1,800 (Congregation)

Cube per seat, 355 cu. ft.

Absorbent,	Remarks	Area Sq. ft. or No.	Coefficient	No. of Units	Adjustment	Net No. of Units
Plaster on rubble, stone walls and brick vaults	Light plaster distempered	38,000	0.025	950	[Adjustments made in the separate items]	950
Stone gallery fronts and piers	Red sandstone, slightly porous	4,000	0.03	120	Add 10% for breaks and mouldings	132
Marble floor to Sanctuary		1,500	0.01	15		15
Window glass in lead and iron frames	Responds to middle pitch	3,400	0.027	918	Add 25% for transmission	1,147
Wood panelling in aisles and Sanctuary	Oak. Responds to low middle pitch	3,000	0.1	300		300
Wood panelling in galleries	Oak. Responds to high middle pitch	1,000	0.1	100		100
Wood floors to pew areas	Air space 1 ft. under deal boards. High middle pitch. Very resonant	5,100	0.1	510	Less 10% for shading	459
Wood floors to galleries	Responds to high mid- dle pitch	5,200	0.1	520	Less 10% for shading	468



## LEIPZIG THOMASKIRCHE—

## REVERBERATION TABLE—CONTINUED

Absorbent	Remarks	Area Sq. ft. or No.	Coefficient	No. of Units	Adjustment	Net No. of Units
Lino. on remainder gangways	No undermat	4,000	0.04	160		160
Carpeting, nave and Sanctuary	Exposed No undermat	520	0.13	78		78
Wood pew ends and exposed desks	Oak varnished	2,000	0.06	120		120
Curtains in Sanctuary	Heavy tapestry	390	0.2	78		78
Curtains in galleries and over nave door	Thick wool	1,000	0.15	150		150
Brocade panels and canvases in Sanctuary		840	0.1	84		84
Organ chamber and opening	Wood and pipes	550	0.08	44		44
Pew seats in nave and galleries plus few chairs	Large deal tip-ups in nave. Gallery pews. Cane chairs. No cushions	1,613	Average 0.3 per seating	484		484
TOTAL PERMANENT ABSORPTION						4,850
Full congregation	On pews and seats as above	1,800	4.7 less 0.3 = 4.4 per person	7,020		7,020
One-third congregation	On pews and seats as above	600	4.7 less 0.3 = 4.4 per person	2,640		2,640
Choir and orchestra	Neglect seats	210	4.7	987		987

$$\text{Reverberation } \dots t = \frac{V}{A} \times 0.05$$

$$t = \begin{cases} \text{Full congregation (1,800)} & \dots \dots 2.5 \text{ seconds} \\ \text{One third congregation (600)} & \dots \dots 4.3 \text{ "} \\ \text{Rehearsal (210)} & \dots \dots 5.8 \text{ "} \\ \text{Empty} & \dots \dots 6.6 \text{ "} \end{cases}$$

## ST. MARGARET'S, WESTMINSTER

## REVERBERATION TABLE

Volume 257,000 cu. ft.

Average seating, 1,000.

Cube per seat, 257 cu. ft.

Absorbent	Remarks	Area or number sq. ft.	Coefficient	No. of Units	Adjustment	Net No. of Units
Masonry. Ragstone not plastered	Friable and slightly porous	10,900	0.03	327	Plus 5% for breaks, Monuments, etc.	343
Stone and tile flooring		2,600	0.02	52		52



## ST. MARGARET'S, WESTMINSTER—

## REVERBERATION TABLE—CONTINUED

Absorbent.	Remarks.	Area or number sq. ft.	Coefficient.	No. of Units.	Adjustment.	Net No. of Units
Glass in lead panes	Responds to middle tones	4,000	0.027	108	Add 25% for transmission	133
Glass panes in choir screens	Responds to middle and middle high	112	0.027	3		3
Wood ceilings		7,250	0.06	435		435
Wood panelling in chancel	Responds to middle tones	300	0.1	30		30
Wood pew flooring	Responds to low middle tones	4,600	0.06	276	Less 10% for shading	250
Elm pews. Back and end panels	Responds to middle tones	5,350 sq. ft.	0.06	315		315
Elm pew seatings	With a number of seat mats	1,000 seats	0.2 per seat	200		200
Hussocks	10 in. x 15 in. x 5 in.	No. 1,000	0.5 each	500	Less 10% for shading	450
Organ case	Wood and pipes	504	0.08	30		30
Curtains, Flags, Altar carpet		250	Average of 12	30		30

TOTAL PERMANENT ABSORPTION . . . . . 2,293

Choir		30	4.7	141		141
Congregation full	Coeff. 4.7--0.2=4.5	1,000	4.5	4,500		4,300
Congregation, one-third	Coeff. 4.7--0.2=4.5	330	4.5	1,500		1,300

Reverberation . . . t =

Congregation, full . . . .	= 1.9
Congregation, one-third . .	= 3.3
Rehearsal . . . . .	= 5.3
Empty . . . . .	= 5.0



# The R.I.B.A. London Architecture Medal and Diploma 1928

## Presentation to J. Murray Easton [F.] and Howard Robertson [F.]

MR. HENRY V. ASHLEY, VICE-PRESIDENT, IN THE CHAIR

The CHAIRMAN: Before the announcement of the Award of Prizes, etc., is made, there is one other pleasing duty I have to perform. It is the presentation to Messrs. Easton and Robertson of the R.I.B.A. Medal and Diploma for a London Building completed between 1926 and 1928.

Most of you, I expect, have seen this building—the New Hall of the Royal Horticultural Society in Westminster. I

The Presentation was then made.

Mr. J. MURRAY EASTON [F.] said: There must always be some doubt as to the merits of a building in the eyes of producers of other buildings, and I feel that my partner and I are very much indebted to the Jury for turning a blind eye to the imperfections of the building, and a magnifying glass on its merits. We take the honour rather



THE ROYAL HORTICULTURAL SOCIETY'S NEW HALL: GREYCOAT STREET ELEVATION

had another look at it recently, and I feel it to be a fine essay mainly in reinforced concrete. The front in Greycoat Street is dignified and restrained, while the interior is particularly interesting—those fine ferro-concrete trusses of immense height seem to typify the great forest trees, and the little touch of delicate and refined detail in other parts of the building symbolises, to my mind, flower gardens and orchards, with which the work of the Royal Horticultural Society is so intimately associated. The building is undoubtedly a great achievement, and I am sure the Society is to be congratulated on the success of this great undertaking. The Royal Institute desires to honour these architects by presenting the medal and diploma to them.

as a tribute to the spirit and intention of the building, than the actual achievement, in which we recognise many deficiencies. We tried, in it, to achieve a direct solution of the problem, rather than to perform any architectural feat. We are very grateful for the honour which has been bestowed upon us, and on behalf of my partner and myself, I would like to include many people to whom any modern building must owe its success; Dr. Oscar Faber, the engineer, without whom we could scarcely have ventured such a building, Mr. Mackintyre, and our own staff in the office, who worked most enthusiastically and loyally on it. And, finally, the builders, who gave us most admirable work.



Sir WILLIAM LAWRENCE (Member of the Council, Royal Horticultural Society) : Before we secured the ultimate result which appears in the New Hall of the Horticultural Society, we had a pretty stiff fight. There were many plans before us ; there were many people keen on what I described as a barn design. And there was another which was called " New Moorish." There were many who could not understand a hall which had not got cupolas, and I still wonder why the main entrance in Greycoat Street

not with the details of its ornamentation and the furniture of that building !

At any rate, gentlemen, I think the building can be said to be a great success ; it is admirably suited to its purpose. At the International Exhibition of Sculptors we had many visitors from the Continent, and they were unanimous in saying no better building had ever been planned for the exhibition of flowers and plants ; that the lighting was extraordinarily good, so that the plants looked at their best.



THE ROYAL HORTICULTURAL SOCIETY'S NEW HALL : INTERIOR OF MAIN HALL LOOKING EAST

has not got cupolas. The answer is that it would not serve any useful purpose.

We had a very happy time working with Messrs. Easton and Robertson. I used to try to impress on my colleague that when an architect was building a building he ought to have at least some say in the matter ; and I think Mr. Easton will bear me out that I got severely reprimanded in the matter. I remember that we had some disputes about certain details, and we were told that such things could be left to a secretary and were not the concern of an architect, who was concerned merely with the building and

Capt. H. WYKEHAM (representing Messrs. Foster and Dicksee) : I would first of all, on behalf of my firm, offer my sincere congratulations to Messrs. Easton and Robertson on receiving the Medal of the Royal Institute of British Architects. I hope that a very small portion of that honour may reflect on my firm. This building probably offered greater technical difficulties than any building which has been carried out lately. And it was carried out more or less in contract time, which, considering the weather we have during part of the year, is not the usual thing in the building trade.



## Reviews

### WROUGHT IRON AND ITS DECORATIVE USE

By Maxwell Ayrton and Arnold Silcock [F.R.S.] 40.  
 Lond. 1929. (Country Life.) £2.25.

This excellent book deals almost entirely with the work of the past, and with the decorative ironwork of buildings in the British Isles. The large number of fascinating objects of domestic use, which the smiths of their time made for our forefathers, with such good taste, and skill, are not included.

The preface begins with an ironical quotation from Samuel Butler's essays on Life, Art and Science, which may well be taken to heart. The authors tell us "in these pages no attempt to emulate his (Samuel Butler's) clean-cut grace of style has been made, but his form of critical appreciation has been followed in preference to the too common method of writing a mere catalogue of the features of interest." This, of course, adds interest to the book, it gives a point of view, and stimulates thought.

The book is divided into ten chapters, the first of which gives a brief sketch of the "nature of iron, its distribution, early methods of manufacture and uses," with illustrations of primitive furnaces. The next two chapters deal with the history of wrought ironwork in England, from the tenth to the seventeenth centuries, and the remaining chapters with the work of the smiths of the seventeenth and eighteenth centuries, the decline and revival of wrought ironwork, and a few words about the latest developments by Edgar Brandt in France, and a Swedish smith.

The account of the early methods of producing iron and of forging the "blooms" into bars and sheets, ready for use, is interesting. It meant an enormous amount of labour, but it made iron of very high quality, not only because charcoal was used for the fuel, but also because the fibres of the metal were interwoven under the hammer, which made it tough and pliable. Items from accounts are quoted which tell the prices paid for the material in the fourteenth century, and for the finished articles in later times. These figures do not give much idea of cost without some indication of the value of money, compared with the value we know. It is no doubt difficult to compute, particularly in mediæval times, because payment was largely made in kind and a small sum of money added thereto. It would be interesting if, in a future edition, the authors could give some idea of the relative value of the ½d. per lb. for iron, quoted from an account, dated January 1354, with the value of the same sum to-day.

An interesting appendix to the chapter about Jean Tijou, gives extracts from the building accounts of St. Paul's Cathedral, showing the amounts paid to Tijou, and others, for various ironwork. One item "flor ye Iron screen under ye organ-case in ye choir £442." The authors say (p. 86) "only one instance of many, showing the very large remuneration commanded by such works of art at that time as compared with the present day. Allowing for the variation in the purchasing power of money then and now, the cost represents a sum of not less than £3,000 of our money."

This enables us to realise easily the value of the pay-

ments received, and to compare them with the present day. That such a sum was paid for a contemporary work of art of this kind brings home the fact that Englishmen of the seventeenth century had a truer sense of values than we can boast of at present. Albeit, there are not wanting signs, which give one hope for the future, that this truer sense is returning.

There is little doubt that Jean Tijou was ahead of English smiths of his day, and that he raised the standard of the craft in this country; just as in the earlier days very skilful Italians came to England, to the great benefit of our own artist craftsmen who not only learned much, but were inspired and stimulated to rise to a higher standard. They responded quickly to the influence and their work very soon equalled that of the foreign master, and sometimes surpassed it.

A delightful story, "Hal o' the Draft" in *Puck of Pook's Hill* by Rudyard Kipling, gives a living picture of the process.

It is a mistake to suppose, as some do, that the best and most artistic work is always that of some other nation than our own. In some arts, embroidery for instance, Englishmen have surpassed all others, and in my opinion, no finer woodwork has been done than the best English. This book shows that British smiths were the equals of any country, and it proves that some things which have been attributed to foreigners, are the work of English smiths.

In criticising the work of Jean Tijou, the authors show how his design improved under the influence of Sir Christopher Wren, so the French master benefited by English influence.

The book is profusely illustrated with well-chosen examples, which give a good vision of the growth of wrought ironwork in this country from early times, and the changes in fashion and feeling for form. Although elaborate work predominates, simple things are also illustrated, and in turning over the pages it is the simpler things which strike one as the most charming. Again, how much better wrought iron gates, and railings supported by piers of masonry, or brickwork, satisfy the æsthetic sense, than when the piers are built up of ironwork. The contrast between the mass of the pier and the light and graceful lines of the metal expresses more completely the nature and peculiar qualities of wrought iron, and makes the most of it.

It would, I think, have added interest to the book, if some examples of Italian wrought iron had been included, because the Italian feeling for the use of this delightful material is different from the British, and to see examples side by side is stimulating to the imagination.

The closing remarks about modern Art, although brief, are discriminating and sympathetic. The closing paragraph well expresses an understanding outlook. "It is true that among the modern school morbid tendencies exist, but it would be truer to say that modern art and craftsmanship tend to escape the morbid features so prevalent since the war and to capture a spirit which is new, and yet as old as Adam."

The book is well printed in well-formed legible type, but alas! upon a heavily-faced paper which, in addition to other disadvantages, makes a ponderously heavy volume.

CHARLES SPOONER [F.]



**THE HONEYWOOD FILE: AN ADVENTURE IN BUILDING.** By H. B. Crenell, F.R.I.B.A. 8s. London, 1929. [The Architectural Press.] 7s. 6d.

Under this title the Architectural Press republishes the series of letters which have appeared in the *Architects' Journal*, to the great amusement and delight of the members of a much harassed profession. The file forms a human document which very completely and humorously gives an exceedingly accurate picture of an architect's trials and difficulties and the manner in which the young architect may fall into pitfalls before the armour of experience protects him.

Perhaps one of the best testimonies to the merits of the work was that afforded by a friend of the writer, a solicitor, who read it with the keenest appreciation and enjoyment. He said that it had given him an altogether new understanding of an architect's difficulties, while the letters were admirable examples of the way in which letters should be written or should not be written, a subject on which a solicitor is perhaps better able to speak than anyone else. He said that the book should find a place on every solicitor's table.

The architect, James Spinlove, as a prototype of the average younger practitioner of good abilities and education, many of whose difficulties arise more from want of knowledge of mankind than from lack of technical experience. He usually fails through his too single and earnest wish to explain his own point of view and his lack of understanding of the mental standpoint of others. It may be said that to be able to express oneself is good but the ability to let others gather that they have expressed themselves better is far more useful.

Sir Leslie Brash, the client, is the average successful business man to the life, pompous, self-assertive, and anxious to maintain his dignity. His personal success in his own calling gives him complete confidence in dealing with matters he knows little or nothing about.

Grigblay is the builder we all love, the man of wide experience in his own avocation, honest, reliable and sincere, to whom most of us owe a debt of gratitude at some period or other of our lives. He does his best to help Spinlove and bears with good-humoured tolerance the assumption of authority of a much younger man too conscious of his "professional" position.

Potch, the local surveyor, with his vexatious insistence on small points in the bye-laws is another character we have all met at some time or another, who seems to delight in adding to the difficulty of what is already a sufficiently complicated and difficult occupation.

Some of Spinlove's difficulties no doubt arise from the fact that he hardly recognises that the power behind the throne is really that of a woman. He would probably have avoided many difficulties with Sir Leslie had he got in touch with Lady Brash. In such cases the best and easiest position for the architect is that of the protégé of the lady of the house. Sir Leslie, like many men, is often the mouthpiece of his wife, but having been induced to take up a point his natural obstinacy prevents him from dropping it.

Every one of the many characters in the correspondence is well and subtly drawn by the author, and after reading the book and contrasting it with one's own experiences its

truth and accuracy are patent to us, and also the necessity for the saving grace of humour without which life becomes a very sad and weary journey towards an unknown end.

We feel that it would be an excellent thing for our profession if the book were widely read and circulated among what is called the outside public, while we are sure that the publishers would find that lawyers would give it a hearty welcome through the agency of their press. Nor need we be ashamed of invoking the aid of a great profession whose work is so often intimately bound up with our own and who, in common with ourselves, are interested in manners affecting "real estate." My personal thanks are also due to the author for many hours of very thorough enjoyment.

HERBERT W. WILLS (F.R.I.B.A.)

### NOTES ON SOME RECENT FOREIGN PERIODICALS.

By GRAHAM B. TUBBS (A.I.).

A magazine from the United States which we have received occasionally can now be seen regularly in the Library. It is called *The Architect*; this number gives a layman's impression of Modernism, the author's points being illustrated by photographs of Meads, Holabird and Root's virile work at Chicago, including the *Daily News Building* and 333 North Michigan Avenue. Among the well reproduced illustrations are interiors (including the bar!) of a house at Rumson, N.J., by Hyde and Shepherd, and a house at Castelletmare, California, on a wonderful site and in the Italian Renaissance style, magnificently to period. With the October and November numbers of *The American Architect* the Editor has introduced a new policy; in an editorial in the latter he says:—"The architect has been turned a professional man. So he is. But in the year 1929 he is nearer to being a business man than ever before in the history of his craft" and future policy is to be founded on this idea. The format has been modelled on American popular magazines, where advertisement revenue is considered more important than readers' convenience and one has to hunt for the conclusion of each article among the advertisements at the end. The result is that it looks very "scrappy" and the effect upon the appearance of the magazine is nearly as disastrous as that on the readers' temper. However, the new outer covers are very attractive. The October number has an article on underwater illumination of swimming baths. It is claimed that this is the only satisfactory method of lighting these buildings, as the old system gives unpleasant reflection on the surface of the water, while the underwater method is attractive both for the swimmer and the spectator. A practical point of importance is that the light units must be spaced fairly close together and of low power rather than be few and powerful. In the large, but not very successful, skyscraper for the Union Trust Building at Detroit, illustrated in the November number, the most interesting detail shown is a decorative map of the state of Michigan by Ezra Winter, which decorates the end wall of the Banking Chamber.

The November number of *Architecture* (New York) contains several interesting schemes; one from John Russell Pope's office is the Marcus Ward Home for aged and respectable bachelors and widowers who are in want. It is



evidently on the lines of The Charterhouse and Morden College, Blackheath. The buildings are rather in the Cotswold tradition and the scheme cost \$5,000,000. Another interesting group of buildings which must be peculiar to America is "an undertaking establishment and funeral home" of H. M. Patterson and Son built as a memorial to H. M. Patterson at Atlanta, Ga. It is very extensive and contains a chapel, many rooms seemingly for laying in state, bedrooms and reception rooms, as well as those connected with the trade, such as joinery shops, embalming rooms and rooms for display of fittings. The whole is kept very domestic in character and the gardens are beautifully laid out. Mr. Yerbury's photographs of European architecture consists of German buildings, the majority being Herr Höger's vigorous work at Hamburg.

In the *Architectural Record* for November there are a great many private houses in the style of every European country and ranging from the most traditional to the most modern. The latter extremity is represented by Mr. Barry Byrne's own house which is built round one side of a circular living-room. The walls are of patent blocks, stuccoed, all the external metal work is aluminium and the roof is covered with shingles of the same metal. The house at Newbury, Berks, by Mr. T. S. Tait, is given, in detail, including drawings in colour showing the decorative schemes for the outside.

The October issue of *Construction* (Toronto) gives illustrations of the new "Automotive" building by D. E. Kertland at the Canadian National Exhibition at Toronto. This is a large permanent exhibition hall of interesting design; it was recently built as part of the scheme for re-planning the Exhibition grounds, which have been in use for upwards of 35 years, during which time their growth was somewhat haphazard. A scheme for improving the layout was recently put into effect and this is the first building to be erected under it. There is also a full summary (which also appears in several of the U.S. magazines) of the report on High Buildings prepared by the American Institute of Steel Construction. The idea was to carry out a careful and unbiased investigation into the structural and financial possibilities of the skyscraper, but one suspects that the wish of the originators was to answer the School of American Town Planners who oppose the skyscraper on civic grounds and back the objection with the statement that they do not pay. The report finds that, from an engineering point of view, a building 2,000 feet high is possible and that, financially, buildings of 75 storeys may, in certain circumstances, be more remunerative than those of a mere 50 floors.

In *Pencil Points* (October) the article on Californian Missions is concluded and illustrations are shown of buildings put up before the confiscation of religious buildings by the Spanish Crown in 1834. There are also a great many examples of the architectural rendering of the late Birch B. Long, including work he did for McKim, Mead and White and a fine drawing of the new Skyscraper University at Pittsburg.

The *Gazette des Beaux Arts* (November) has an important paper by M. Francastel on Mansart's scheme for a Great Gallery at Versailles. Le Vau, who had won the competition for enlarging the Château of Louis XIII by

keeping most closely to the King's ideas, had been succeeded by Le Brun, but, when it was decided to move the Court and certain Government Offices here from Paris, Mansart, as chief architect, made important alterations to the scheme, the Great Gallery being the heart of his plan. M. Francastel's paper is fully illustrated by drawings from the National Archives which are from Mansart's original drawings. Besides their great interest as being examples by so great a master, they are of antiquarian interest as showing parts of the palace, notably the façades to the Queen's and Stag Courts, which were rebuilt in the eighteenth century.

*La Construction Moderne* for November 3rd is chiefly devoted to the large *Hôtel Royal Picardy* at Le Touquet. When we read in the text that it is "a huge manorial dwelling in the style of the English Renaissance, showing Norman influence with traces of Flemish work," we fear the worst, and in this case our fears are not allayed by looking at the photographs. They bear out one's most pessimistic forebodings, especially if one has seen the recent "picturesque" buildings of the Normandy coast.

In the German *Innen Dekoration* for November there are one or two good examples of furniture made of bent metal tubing. The Italian *Architettura e Arti Decorative* gives the work of the competitors in a competition for the furniture of a room in middle-class houses, which are not particularly interesting, and the Pavilion of the Municipality of Rome at the Exhibition at Tripoli.

## Correspondence

### PAPER ON RURAL BYE-LAWS.

Bank Chambers,  
St. Albans.

19 December 1929.

To the Editor, JOURNAL R.I.B.A.—

SIR,—I attended the meeting on the 16th inst., and was, no doubt like many others, disappointed in the manner in which the discussion on Rural Bye-laws was opened by Mr. Baillie Scott.

The Bye-laws relating to buildings in rural areas are, in many cases, irksome and unreasonable, but the question of heights of rooms and sizes of windows in my opinion the least troublesome to deal with, as surely any architect can design a building with rooms of 8 feet in height and windows of a tenth of the floor area, without losing scale.

The rules which require to be relaxed or amended are those which relate to the following:—

Thickness of walls.

Size of timbers.

Timber construction.

Brickwork behind tile hanging.

Insertion of unsightly gratings in lavatories and larders, which are already provided with proper windows.

The rules which prevent certain forms of construction being used when the building happens to be within a certain distance from the boundary of the site.

I feel confident that if points such as these had been emphasised, the representative from the Ministry of Health and the District Surveyors, would have gone away



from the meeting feeling that Rural Bye-laws are too stringent, and not with the impression, I fear they must have had, that architects are more concerned with the artistic effect of the outside structure than with the health and comfort of the occupiers.—I am, Sir, yours faithfully,

PERCIVAL C. BLOW [A].

#### OFFICIAL ARCHITECTURE AND THE DESIGN OF PUBLIC BUILDINGS.

The two following letters by Sir A. Brunwell Thomas [P.] were published in *The Times* of 24 and 30 December, 1929, respectively.

P.3. Albany,  
Piccadilly, W.  
21 December 1929.

To the Editor of "The Times."

SIR,—In a letter published in *The Times* of July 2 I drew attention to a speech of the Marquess of Londonderry on "the relationship which should exist between the State and architecture," in which he, as First Commissioner of Works and speaking for his Department, sought to establish the extremely important general principle that the design of the whole of the State buildings throughout this country should be entirely withdrawn from the general practice of architecture and be transferred to the Office of Works, whose building programme for the present year was officially stated to include altogether nearly 400 public buildings—Law Courts, administrative offices, laboratories, museums, art galleries, post offices, etc., in all parts of the kingdom. I asked that it should be the subject of an independent inquiry appointed by the Government.

It may quite fairly be said to be a matter of grave doubt whether it is in the best interests of the art of architecture that the design of all these State buildings should become part of the routine of an official department, and also whether it is in the public interest that such a department with such an immense programme of work should have grown up within recent times, practically unknown to the public.

In the columns of *The Times*, and in the Press in various parts of the country, the matter has been taken up in reference to particular examples; the new Government buildings to be erected on the Calton Jail Site, Edinburgh; the Government buildings and Law Courts in Belfast; and the Government offices on the Embankment in London—each an extremely important issue. But the real issue is one of general principle, and that is whether it is in the best interests of the art of architecture that the whole of the State buildings of this country should be designed by an official department. It is an open question; all that need be said at this moment is that the present position is a matter of concern to all those interested in architecture, not only in this country, but also in the Dominions overseas. To have it cleared up by an impartial inquiry would of itself be a service to architecture throughout the Empire—whichever way the decision goes.

It has been stated in the Press more than once (not in *The Times*) that a "fighting committee" had been appointed under the chairmanship of Sir Reginald Blomfield, R.A., to put forward the case against departmental

architecture. This is altogether incorrect, and on the contrary it is to be hoped when the time comes that, with so important a matter, all that has to be said on both sides will be put before the committee of inquiry fairly. Any comparison between the designs of official architects and private architects need not arise. I feel quite sure that whichever side endeavours to take a strong line on that point will lose it.—I am, Sir, your obedient servant,

A. BRUNWELL THOMAS.

To the Editor of "The Times."

SIR,—In my former letters to *The Times* I have urged that there should be an impartial Government inquiry into the claim of H.M. Office of Works that the design of the whole of the State buildings in future should be entirely withdrawn from the general practice of architecture in this country, and transferred to the Office of Works. There have been protests in the Press from various parts of the country, and in the case of the new Government buildings which are to be erected on the Calton Jail site in Edinburgh, the reply of Mr. Langshury, the First Commissioner of Works, which appears in *The Times* Parliamentary report this morning, attempts to justify the claim of his Department to design this important public building by urging that:—

If his Scottish colleagues would only have patience, they would find that the British (*sic*) Office of Works would produce a scheme that would redound to the glory of Scotland and the honour of the Department.

But what if they do not? It is surely wanting in political sagacity for a Minister of State to place himself in a position of having to appeal for approval of the work of his Department, not to the House of Commons, but to the Scottish Fine Arts Commission and even to the Edinburgh Corporation as Mr. Lambury himself proposes. In any case it may be asked whether the House of Commons is fully informed of the work of his Department. The evidence given by the Secretary of H.M. Office of Works (paragraph 696) before the Select Committee on Public Accounts in February last was as follows:

Q. By the Committee. There is, I think a growing inclination to include all Government work within the ambit of the Office of Works to the exclusion of professional architects outside, is there not?

A. Sir Lionel Earle. I do not think so, because in the case of any really important buildings, as for instance, the Parliament House in Belfast and the Washington Embassy, they are built by an outside architect.

Notwithstanding this assurance, it was officially stated three months later that the building programme of the Office of Works for the present year alone included nearly 400 public buildings, with 14 new Consular buildings abroad, including a large Embassy scheme at Tokyo, none of which is to be built by an outside architect. The need for impartial inquiry is urgent. The particular designs prepared by the Office of Works to which I referred in my former letter for the new Government buildings in Edinburgh, Belfast and London, are important examples, but the greater issue is one of general principle and that is whether it is in the best interests of the art of architecture that the whole of the State buildings in this country should in future be designed by an official Department.—I am, Sir, your obedient servant,

A. BRUNWELL THOMAS.



## THE PROPOSED CHARING CROSS BRIDGE.

Mr. Herbert Morrison, M.P., the Minister of Transport, and Sir Percy Simmons, the Chairman of the Improvements Committee of the London County Council, received a deputation at the Ministry on 23 December, consisting of representatives of the Royal Institute of British Architects and the Thames Bridges Conference. The deputation attended to express their objection to the Charing Cross Bridge scheme which is being promoted by the Council in the present Session of Parliament. The speakers on behalf of the deputation were:—

Mr. E. Stanley Hall, M.A., vice-president of the R.I.B.A., who introduced the deputation in the unavoidable absence of Sir Banister Fletcher, president, R.I.B.A.; Mr. Arthur Keen, F.R.I.B.A., chairman of the Thames Bridges Conference; Sir Reginald Blomfield, M.A., R.A., F.S.A., F.R.I.B.A. (representing the Royal Academy); and the Rt. Hon. the Earl of Crawford and Balcarres, K.T., P.C., LL.D., F.S.A. (representing the London Society).

Sir Percy Simmons and the Minister replied on behalf of the London County Council and the Ministry.

## THE NEW YEAR HONOURS.

The New Year Honours list containing the following names, which are of interest to architects:—

## K.C.I.E.

Sir Edwin Landseer Lutyens, R.A., F.S.A., F.R.I.B.A., LL.D.

## KNIGHTS.

Lawrence Wensley Chubb, Esq., Secretary of the Commons and Footpaths Preservation Society for 35 years. Secretary of the National Playing Fields Association since 1928.

Emery Walker, Esq., Process Engraver and Printer. Past Master of the Art Workers' Guild. Late President of the Arts and Crafts Exhibition Society. A Trustee of the Wallace Collection and a Fellow of the Society of Antiquaries.

## O.B.E. (CIVIL DIVISION).

James Gray West, Esq., M.B.E., Senior Architect, Office of Works.

## INDIA O.B.E. (CIVIL DIVISION).

Arthur Gordon Shoosmith, Esq., A.R.I.B.A., Architect, Delhi.

## BRITISH SCHOOL AT ROME.

Mr. Ian Archibald Richmond has been appointed to take over the office of Director of the British School at Rome on the retirement, next June, of the present director, Mr. Arthur Hamilton Smith.

Mr. Richmond graduated from Corpus Christi College, Oxford, in 1924, and subsequently held the Gilchrist Studentship of the British School at Rome and the Craven Fellowship and the Goldsmiths' Senior Studentship of the University of Oxford. Since 1926, Mr. Richmond has been Lecturer in Classical Archaeology and Ancient History at the Queen's University of Belfast.

## PROPOSED NEW BUILDING ON THE CALTON JAIL SITE, EDINBURGH.

The following letter on the proposed new Government building at Edinburgh was addressed by the Secretary of the Royal Incorporation of Architects in Scotland to the Lord Provost of Edinburgh.

15 Rutland Square,  
Edinburgh,  
10 December, 1929.

The Rt. Hon. Lord Provost T. B. Whitson,  
City Chambers,  
Edinburgh.

## CALTON CRAG SITE.

MY LORD PROVOST.—I am instructed on behalf of the undernoted bodies (representative of some 10,000 active Members), following a joint conference thereof, to write you direct, as the First Citizen of our Capital, in above connection, and with reference to the forthcoming visit of the First Commissioner of Works to Edinburgh, on 16th instant, when it is understood he is to confer with the Town Council and Sheriff Court House Commissioners as to the proposed new Government buildings on said site.

Following a letter from Mr. George Mathers, M.P., which appeared in the public Press, a number of societies, representative of Scottish opinion, approached the First Commissioner, asking to be allowed to submit on said visit their considered views on the subject. Mr. Lambury has declined to meet or hear these deputations.

The Societies, as undernoted, cannot emphasise strongly enough the feeling existing, not only throughout Edinburgh, but throughout Scotland, that the buildings to be erected on above unique site should not be designed merely to accommodate Government Branch Offices and a Court House. It is felt that, without a competition open to all architects in Britain, the opportunity will be lost of making said buildings representative, within and without, of their importance as the centre of Scottish Government, and worthy of the architectural traditions of the City of Edinburgh.

As you are aware, both the public Press and the general public wholly endorse the views and wishes of the Town Council, as recently expressed in the Town Council's vote for open competition, that the site is indeed deserving of the finest architectural treatment available.

For and on behalf of: The St. Andrew Society, The National Council of Women (Edinburgh Branch), The Cockburn Association, The Edinburgh Women Citizens Association, The Royal Incorporation of Architects in Scotland, The Society of Scottish Artists, and The Greater Edinburgh Club,

I have the honour to be, My Lord Provost,

Your Lordship's Obedient Servant,

(Signed) A. NICOL BRUCE, W.S.

## MR. JOHN A. PEARSON (F.).

Mr. John A. Pearson, F.R.I.B.A., has been elected an Associate of the Royal Canadian Academy.



## Allied Societies

### SHEFFIELD, SOUTH YORKSHIRE AND DISTRICT SOCIETY OF ARCHITECTS AND SURVEYORS.

At the General Meeting of the Sheffield, South Yorkshire and District Society of Architects and Surveyors, held on Thursday, 12 December, a lecture was given by Mr. Percy Thomas, O.B.E., F.R.I.B.A., of Cardiff, on "Competitions." The lecturer pointed out that only by going in for competitions could the young and unknown architect, unless he had money or an established practice to step into, become known, and although objections had been made to competitions on the score of the large sums of money spent by unsuccessful competitors, he did not think that this objection was very material as competition work was usually done in spare time and general practice was not put aside for it. He also pointed out the advantages from the point of view of the public who, by the system of open competitions, have a reasonable certainty that they will obtain in return the best design available for the building in question. In the case of young men starting professional life, the time spent on competitions, even where no success was attained, was of great value.

Mr. Thomas proceeded to explain the valuable work which had been accomplished for the profession by the R.I.B.A., through its Competitions Committee, in reforming the conduct of competitions and securing the progressive improvement of conditions. It was important that requirements should be stated in simple and broad terms and that all needless restrictions should be omitted. The present revised regulations of the R.I.B.A. were probably not capable of much improvement.

First of all a thorough study of the conditions was all important before a competitor started to work out his scheme. The making of finished drawings should be deferred until the latest possible stage, the design being studied best by means of repeated revisions on tracing paper. It might be found that the best "motif" for the design lay in the first sketch and not in the last, and therefore this system was preferable to the constant use of indiarubber where no record was available of the designer's early ideas. This system also enabled judgment to be formed on the progressive development of the design.

The lecturer also emphasised the necessity of elevations being shaded, as it was extremely difficult for an assessor to judge the possibilities of light and shade on a line drawing only.

At the close of the lecture Mr. Thomas explained a number of his own competition designs, illustrated by means of rough pencil sketches, these including the recent Masonic Memorial Buildings in London, Leeds University Buildings and Fire Brigade Stations at Bristol and elsewhere.

A discussion followed and a vote of thanks to the lecturer, proposed by Mr. J. M. Jenkinson and seconded by Mr. J. C. P. Toothill, was unanimously carried.

## Obituary

### WILLIAM LOUIS LUCAS [F.].

William Louis Lucas, F.R.I.B.A., and late Major R.A., died on 24 December last at 31 South Audley Street, his London home. Born in 1866, he was the elder son of Horatio Joseph Lucas, the etcher, examples of whose work may be seen in the Print Room of the British Museum. Educated at Clifton and Trinity College, Cambridge, Mr. William Lucas was articled to the late Sir Ernest George. The scope of his domestic architecture was wide, and included Offley House, Hitchin; Whites and the Parish Hall, Goudhurst; Caldecott House, Abingdon; his own home, Oaks, Chaddleshall, and other houses in various parts of the country. In London many private houses were altered to his designs.

His most important work of recent years was the new office for the Imperial Continental Gas Association in Devonshire Square, E.C. He was an original member of the London Society from its formation in 1912, and a member of the Council and the Executive Committee. Mr. Lucas was one of the few members of the special committee for considering various schemes for the development of the south side of the river who advocated a bridge at "high level" for the construction of a new road bridge at Charing Cross. His plan was exhibited at the Royal Academy of 1911, and he was the first to put forward the site for the new railway station which has since been adopted.

Though 48 years of age at the outbreak of war, Mr. Lucas transferred from the Territorial Reserve to the regular Artillery, and in August 1915 went with a battery to France. He was gassed in April 1916, and although he continued to serve, and even returned to France in 1918, he was never able to shake off the effects of the gas, and was compelled, in the last years of his life, to give up his professional and other interests.

### W. A. CHAMBERS [F.].

After training in an architect's office in London, Mr. Chambers went to Bombay as an assistant in the office of Messrs. Gostling and Morris, of which firm he afterwards became senior partner. He remained in Bombay over 30 years, retiring to England in the year 1926. He was responsible for the design and erection of many important buildings in Bombay City and also for several cotton mills up country. Amongst the buildings in Bombay can be cited the Rest House for pilgrims proceeding to Mecca, the Taj Mahal Hotel, the Roman Catholic Church and Archbishop's residence and school in the fort, besides a large number of residences and cotton mills.

In his later years in Bombay he was engaged chiefly on valuation cases. For many years he was an assessor on the Tribunal of Appeal in Land Acquisition cases and his services were in great demand in the High Court cases in which valuation of property was in question, and one of his last duties was as an arbitrator between the Government of Bombay and the Municipality of Bombay in respect to the assessment of all Government buildings and property. He was greatly interested in municipal matters and did good work for several years as a member of the municipality of Bandra, a suburb of Bombay, where he resided. He was also for some time a Fellow of the University of Bombay and a Justice of the Peace for the city and island of Bombay.

### C. B. BENSON [L.].

Mr. Benson died on 7 November at his residence, Rings, Dorchester, at the age of 72.

He started his career as an architect at Hastings, and from there he joined his father in Yeovil in 1881, later taking over the practice which he extended until he became widely known in the district. Before the War started he also took an office in Sherborne, in which town and neighbourhood he carried out a great deal of work. He had a wide connection in several counties, for he not only did work in Somerset, Dorset and Wilts, but also in Devon and Hampshire, and many fine old county houses and churches owe their careful and artistic renovations to him.

In 1922 he left Yeovil and built a house at Dorchester where, still devoted to his life's work at the age of 65, he continued his practice in Dorset. One of the last buildings he carried out was the Savile Memorial Hall at Cattistock, an interesting Ham stone building in the centre of the village close by the famous belfry.

One of the chief characteristics of his work was its solidity and simplicity of style and one of the great joys of his work was garden planning and laying out and, if possible, he would plan the garden first so that the house might fit in with it to make one artistic whole.



## R.I.B.A. Prizes and Studentships, 1930

The designs and drawings submitted for the Prizes and Studentships in the gift of the Royal Institute are now on exhibition in the R.I.B.A. Galleries, 9 Conduit Street, and will remain open to members and the public until 20 January (10 a.m. till 8 p.m., Saturday 5 p.m.). The Council's Deed of Award, read at the General Meeting of 6 January, is as follows:—

### DEED OF AWARD OF PRIZES AND STUDENTSHIPS.

MONDAY, 6 JANUARY, 1930.

To the Ordinary General Meeting, Monday, 6 January, 1930.

GENTLEMEN,

Pursuant to the terms of Bye-law 74, that the Council shall, by a Deed of Writing under the Common Seal, award the Prizes and Studentships of the year, and announce such Awards at the next General Meeting after the adjudication, the Council have the honour to state that they have examined the several works submitted for the Tite Prize, the Soane Medallion, the Royal Institute Silver Medal (Measured Drawings), the Royal Institute Silver Medal (Essay), the Owen Jones Studentship, the Henry Saxon Snell Prize, the R.I.B.A. (Alfred Bosson Travelling) Studentship, the Griesell Prize, the R.I.B.A. Hunt Bursary, the R.I.B.A. Neale Bursary, the Arthur Cates Prize, the R.I.B.A. Silver and Bronze Medals for Recognised Schools, and the R.I.B.A. Prizes for Public and Secondary Schools.

**THE TITE PRIZE: A CERTIFICATE AND £50.**  
186 candidates took part in the Preliminary Competition, and 21 were admitted to the Final Competition.

The Council report that in the Final Competition 19 designs for a Monastery were submitted under the following mottoes:—

Bos'un	Pax
Mendicant	Tute
Abbot	Quickstick
Pom	Shandy
Aunt	Bill
Bubbles	Ebenezer
Slacker	Corio
Sgraffito	Rentento
Blotto	Guidi
Selandé	

The Council have awarded the Tite Certificate, and, subject to the specified conditions, the sum of fifty pounds to the author of the design submitted under the motto "Corio"; and Certificates of Honourable Mention to the authors of the designs submitted under the mottoes "Bubbles," "Tute," and "Ebenezer."

**THE SOANE MEDALLION: A SILVER MEDAL AND £150.**

36 candidates took part in the Preliminary Competition,

\* Mr. Arthur Charles Collins, Public Works Department, Melbourne, Victoria, Australia.

\* Mr. Eric Francis Stacy, 95 Arcadian Gardens, Wood Green, N.22 (Department of Architecture, Northern Polytechnic).

\* Mr. Harry Banister, "Edgbaston," 29 Crosby Road South, Seaforth, Liverpool (The Liverpool School of Architecture, University of Liverpool).

\* Mr. Eric Frank Starling, 42 Selson Road, Croydon, Surrey (School of Architecture, University of London).

and of these 12 were admitted to the Final Competition. In addition, 11 candidates were admitted direct to the Final Competition.

The Council report that in the Final Competition 13 designs for a Sports Club were submitted under the following mottoes:—

Noah	Alfy
Henbane	Nox
Henri	Possibly
Trieb	Don
Cwm	Fly
Polo	Grass
Dome	

The Council have awarded the Soane Medallion, and, subject to the specified conditions, the sum of £150 to the author of the design submitted under the motto "Noah," and a Certificate of Honourable Mention to the author of the design submitted under the motto "Trieb."

**THE ROYAL INSTITUTE SILVER MEDAL AND £75 FOR MEASURED DRAWINGS.**

Two sets of drawings were submitted under the following mottoes:—

Parsnip	Cyma
---------	------

The Council have awarded the Silver Medal and £75 to the author of the measured drawings submitted under the motto "Parsnip."

**THE ROYAL INSTITUTE SILVER MEDAL AND £50 FOR AN ESSAY.**

Six Essays were submitted under the following mottoes:—

Polly	Milexian
Much	A.B.C.
Ebor	Research

The Council have awarded the Silver Medal and £50 to the author of the Essay on "Science and the Art of Architecture" submitted under the motto "Research" and a Certificate of Honourable Mention to the author of the Essay on "John Carr, Architect, of York, 1720-1807," submitted under the motto "Ebor."

**THE OWEN JONES STUDENTSHIP. A CERTIFICATE AND £100.**

Six candidates took part in the Preliminary Competition, 5 of whom were admitted to the Final Competition.

The Council report that in the Final Competition 4 designs for a colour scheme for the Interior of a Civic

\* Mr. John Leslie Martin, "Holmeigh," Bramhall Lane, Bramhall, Cheshire (School of Architecture, Victoria University, Manchester).

\* Mr. Sidney Edward Thomas Cawlin, c/o The Architectural Association, 34 Bedford Square, W.C.1 (Architectural Association, London).

\* Miss Sadie Speight, Netherby House, Latham, Ormskirk, Lancs. (School of Architecture, Victoria University, Manchester).

\* Mr. Ronald Aver Duncan, A.R.I.B.A., 30 Great James Street, Bedford Row, W.C.1 (Architectural Association, London).

\* Mr. William Arthur Eden, A.R.I.B.A., Central School of Arts and Crafts, Margaret Street, Birmingham (School of Architecture, University of Liverpool).



Hall were submitted under the following mottoes:—

Lampadaire	Lilith
Chameleon	Luds

The Council have awarded the Owen Jones Certificate and, subject to the specified conditions, the sum of £100 to the author of the drawings submitted under the motto "Chameleon."<sup>10</sup>

#### THE HENRY SAXON SNELL PRIZE OF £100.

One application, consisting of drawings and testimonials, was received from:

Mr. Kenmuir Harry Read [A.].

The Council have awarded the Henry Saxon Snell Prize of £100 to Mr. Kenmuir Harry Read [A.].

#### THE R.I.B.A. (ALFRED BOSSOM) TRAVELLING STUDENTSHIP.

1. *R.I.B.A. (Alfred Bosson) Silver Medal.*—Two designs for a Departmental Store in an important town were submitted under the following mottoes:—

Truro	Gurrie
-------	--------

The Council have awarded R.I.B.A. (Alfred Bosson) Silver Medals to the authors of the designs and reports submitted under the mottoes:—

Truro <sup>11</sup>	Gurrie <sup>12</sup>
---------------------	----------------------

2. *R.I.B.A. (Alfred Bosson) Travelling Studentship. A Gold Medal and £250.*—The Council regret that they are unable to award the R.I.B.A. (Alfred Bosson) Gold Medal and £250.

#### THE GRISSSELL GOLD MEDAL AND £50.

Five designs for a Concert Pavilion on a Pier were submitted under the following mottoes:—

Steinway	Gilda
Onyx	Zob
Scar	

The Council regret that they are unable to award the Grissell Gold Medal and £50.

#### THE R.I.B.A. HUNT BURSARY—£50.

One application was received from:

Mr. Trevor Mervyn Daniel [A.].

The Council have awarded the Hunt Bursary, subject to the specified conditions, to Mr. Trevor Mervyn Daniel [A.].

#### THE R.I.B.A. NEALE BURSARY—£70.

Three applications were received from the following:—

Mr. William Arthur Smith Cornack [A.].

Mr. Benjamin Stanley Tempest [A.].

Mr. James Frederick Howes [A.].

The Council have awarded the Neale Bursary, subject to the specified conditions, to Mr. William Arthur Smith Cornack [A.].

#### THE ARTHUR CATES PRIZE: A SUM OF £50.

(In the current year the Prize was offered for the promotion of Architecture in relation to Town Planning.)

One application was received from:

Mr. Trevor Mervyn Daniel [A.].

The Council regret that they are unable to award the Arthur Cates Prize.

#### THE ASHPITEL PRIZE, 1929.

The Council have, on the recommendation of the Board of Architectural Education, awarded the Ashpitel Prize (which is a Prize of Books, value £10, awarded to the candidate who has most highly distinguished himself among the candidates in the Final Examinations of the year) to Mr. Ralph Herbert Brentnall, of 28 Victoria Park, Fishponds, Bristol, Probationer 1928, Student 1928, and who passed the Final Examination December 1929.

#### THE R.I.B.A. SILVER MEDAL FOR SCHOOLS OF ARCHITECTURE RECOGNISED FOR EXEMPTION FROM THE FINAL EXAMINATION.

The Council have awarded the Silver Medal for the best set of drawings submitted at the Annual Exhibition of designs by Students of Schools of Architecture recognised for exemption from the Final Examination to Mr. John Leslie Martin, of the School of Architecture, Victoria University, Manchester, and a Certificate of Honourable Mention to Mr. William Crabtree, of the Liverpool School of Architecture, University of Liverpool.

#### THE R.I.B.A. BRONZE MEDAL AND £5 IN BOOKS FOR SCHOOLS OF ARCHITECTURE RECOGNISED FOR EXEMPTION FROM THE INTERMEDIATE EXAMINATION.

The Council have awarded the Bronze Medal and £5 in books for the best set of drawings submitted at the Annual Exhibition of designs by Students of Schools of Architecture recognised for exemption from the Intermediate Examination to Mr. Alexander George Gibson, of the Architectural Association School of Architecture.

#### THE R.I.B.A. PRIZES FOR PUBLIC AND SECONDARY SCHOOLS.

(A) *Prize for Essays*—£2 10s.

Eleven Essays were submitted.

The Council have awarded the Prize to Miss Dorothy Pilgrim, of Notre Dame High School, Battersea, for her Essay on "Southwark Cathedral."

The Council have highly commended the Essays submitted by the following:—

George Richardson (Birkenhead Institute),

"Lower Behington Parish Church."

A. C. L. Whistler (Stowe School); "The Palladian Bridge, Stowe."

J. L. Carr (Castleford Secondary School), "Sherburn-in-Elmet Parish Church."

(B) *Prize for Sketches*—£2 10s.

20 sets of Sketches were submitted.

The Council have awarded the Prize to H. I. Gordon, of Hymers College, Hull.

The Council have highly commended the sketches submitted by Raymond Bacon, of the Grammar School, Great Yarmouth, and R. L. Young, of Queen Mary's School, Walsall.

In witness thereof the Common Seal has been herewith affixed this sixth day of January Nineteen Hundred and Thirty at a Meeting of the Council.

E. STANLEY HALL, *Chairman*,

HENRY V. ASILEY,

HENRY M. FLETCHER,

*Members of Council*,

SYDNEY D. KITSON,

*Hon. Secretary*,

IAN MACALISTER, *Secretary*.

<sup>10</sup> Miss Kathleen Anne Veitch, Osborne Hotel, 2 Gordon Place, W.C.1 (Architectural Association, London).

<sup>11</sup> Mr. Edward Förster, A.R.I.B.A., 1 Lenside Avenue, Muswell Hill, N.10 (School of Architecture, University of London).

<sup>12</sup> Mr. Harold Bertram Rowe, A.R.I.B.A., Whitehouse, Bussaleg Road, Newport, Mon.



## NOTES FROM THE MINUTES OF THE COUNCIL.

2 December 1929.

## EXAMINATIONS.

The following results were reported to the Council:—

*R.I.B.A. Summer Examinations.—Intermediate Examination.*—Examined, 145; Passed, 49; Relegated, 96; Percentage Passed, 34.

*Final Examination.*—Examined, 77; Passed, 36 (and 8 Part I only); Relegated, 33; Percentage Passed, 57.

*Special Examination.*—Examined, 20; Passed, 8 (and 1 Part I only); Relegated, 11; Percentage Passed, 45.

*Examination in Professional Practice for Students of Recognised Schools exempted from the Final Examination.*—Examined, 81; Passed, 57; Relegated, 24; Percentage Passed, 70.

*Special Examination in Design for former Members of the Society of Architects.*—Examined, 1; Passed, nil; Relegated, 1; Percentage Passed, nil.

## R.I.B.A. EXAMINATIONS OVERSEAS.

(1) *R.I.B.A. Final Examination, Singapore, August 1928.*—Examined, 1; Passed, 1; Relegated, nil; Percentage Passed, 100.

(2) *R.I.B.A. Final Examination, Design Portion, Kenya Colony, January 1929.*—Examined, 1; Passed, nil; Relegated, 1; Percentage Passed, nil.

(3) *R.I.B.A. Final, Special and Professional Practice Examinations, Sydney, New South Wales, November and December 1928.*—*Final Examination.*—Examined, 3; Passed, nil; Relegated, 3; Percentage Passed, nil.

*Special Examination.*—Examined, 1; Passed, nil; Relegated, 1; Percentage Passed, nil.

*Examination in Professional Practice for Students of Recognised Schools exempted from the Final Examination.*—Examined, 2; Passed, 1; Relegated, 1; Percentage Passed, 50.

(4) *R.I.B.A. Special Examination in Design for former Members of the Society of Architects, Hong-Kong, January 1929.*—Examined, 1; Passed, 1; Relegated, nil; Percentage Passed, 100.

(5) *R.I.B.A. Special Examination, Johannesburg, April 1929.*—Examined, 1; Passed, 1; Relegated, nil; Percentage Passed, 100.

(6) *R.I.B.A. Intermediate Examination, Kenya Colony, June 1929.*—Examined, 1; Passed, nil; Relegated, 1; Percentage Passed, nil.

*R.I.B.A. Final and Special Examination Fees.*—On the recommendation of the Board it was decided that in the case of candidates taking the Final or Special Examination in two parts, they should be allowed to pay with Part I half of the full fee—namely, three guineas in the case of the Final Examination and five guineas in the case of the Special Examination, the remaining three and five guineas respectively to be paid on taking Part II of the Examinations.

*Students and Instruction in the Practice of the Profession.*—At present Students R.I.B.A. on election are sent:—

(a) The R.I.B.A. Conditions of Engagement and Scale of Charges.

(b) The Suggestions governing the Professional Conduct and Practice of Architects.

(c) The R.I.B.A. Regulations for Competitions.

(d) The Practice Committee's periodical reports of rulings and cases (in the R.I.B.A. JOURNAL).

On the recommendation of the Board it was decided to send in future copies of the R.I.B.A. Forms of Contract where quantities do and do not form part of the Contract.

## RECOGNISED SCHOOLS OF ARCHITECTURE.

On the recommendation of the Board the following decisions were made:—

(a) *School of Architecture, University of Liverpool.*

(1) That the recognition of the three years' full-time day course for exemption from the R.I.B.A. Intermediate Examination be continued.

(2) That the recognition (a) of the five years' Degree course, and (b) of the five years' Diploma course for exemption from the R.I.B.A. Final Examination, except that portion relating to Professional Practice, be continued.

(b) *School of Architecture, University of Manchester.*

(1) That the recognition of the three years' full-time day course for exemption from the R.I.B.A. Intermediate Examination be continued.

(2) That the recognition (a) of the five years' Degree course, and (b) of the five years' Certificate course, for exemption from the R.I.B.A. Final Examination, except that portion relating to Professional Practice, be continued.

(c) *Department of Architecture, Leeds College of Art.*

(1) That the recognition of the three years' full-time day course for exemption from the R.I.B.A. Intermediate Examination be continued.

(2) That the recognition of the five years' part-time course (consisting of two years' whole-time work in the School followed by three years' office work and evening work in the School) for exemption from the R.I.B.A. Intermediate Examination be continued.

(3) That the five years' Diploma course be recognised for exemption from the R.I.B.A. Final Examination, except that portion relating to Professional Practice.

(d) *Senior Department of Architecture, School of Arts and Crafts, Southend.*

That the recognition of the three years' full-time day course in the Senior Department of Architecture for exemption from the R.I.B.A. Intermediate Examination be continued.

(e) *School of Architecture, University of Cambridge.*

That the recognition of the three years' course for exemption from the R.I.B.A. Intermediate Examination, with the exception of those students who only take a third class pass degree, be continued.

(f) *Department of Architecture, University of Toronto.*

(1) That the recognition of the first three years of the course for exemption from the R.I.B.A. Intermediate Examination be continued.

(2) That the five years' Degree course be recognised for exemption from the R.I.B.A. Final Examination, except that portion relating to Professional Practice.

*Libraries of Schools of Architecture.*—The Board reported that the grant of £50 made by the Council for the Libraries of Schools of Architecture for the year 1929 had been administered as follows:—

Sheffield University School of Architecture, £25.



Welsh School of Architecture, The Technical College, Cardiff, £15.

Birmingham School of Architecture, £10.

*The R.I.B.A. Athens Bursary.*—The scheme prepared by the Board for the R.I.B.A. Athens Bursary was approved.

#### EXHIBITION OF DESIGNS OF STUDENTS EXEMPTED FROM THE R.I.B.A. FINAL EXAMINATION.

- (1) The Board reported that they found the general standard of the drawings satisfactory.
- (2) On the recommendation of the Board the R.I.B.A. Silver Medal for Schools of Architecture recognised for exemption from the R.I.B.A. Final Examination was awarded to J. L. Martin, Manchester University School of Architecture.

A certificate of Honourable Mention was awarded to W. Crabtree, Liverpool University School of Architecture.

#### EXHIBITION OF DESIGNS OF STUDENTS EXEMPTED FROM THE R.I.B.A. INTERMEDIATE EXAMINATION.

- (1) The Board reported that they found the general standard of the drawings satisfactory.
- (2) On the recommendation of the Board the R.I.B.A. Bronze Medal and £5 in books for Schools of Architecture recognised for exemption from the R.I.B.A. Intermediate Examination was awarded to A. G. Gibson, School of Architecture, The Architectural Association.

#### R.I.B.A. PRIZES AND STUDENTSHIPS.

*The Soane Medallion, 1928.*—The Board reported that they had approved the report on his tour submitted by Mr. L. W. Thornton White [A.], Soane Medallist 1928.

*The Pugin Studentship, 1927.*—The Board reported that they had approved the report on his tour submitted by Mr. T. M. Ashford [A.], Pugin Student 1927.

*The R.I.B.A. (Alfred Bosson) Travelling Studentship, 1927.*—The Board reported that they had approved the report on his tour submitted by Mr. E. W. Lewis [A.], R.I.B.A. (Alfred Bosson) Travelling Student, 1927.

*The Rome Scholarship in Architecture, 1929.*—The Board reported that the Council of the British School at Rome had awarded the Rome Scholarship in Architecture for 1929 to Mr. J. B. Wride, of the Welsh School of Architecture, The Technical College, Cardiff.

*The R.I.B.A. (Henry Jarvis) Studentship at the Architectural Association School of Architecture.*—The Board reported that the Studentship had been awarded to Mr. G. R. Linfield.

*The R.I.B.A. (Howard Colls) Travelling Studentship at the Architectural Association School of Architecture.*—The Board reported that the Studentship had been awarded to Mr. F. Spratt.

*The R.I.B.A. (Donaldson) Medal at the Bartlett School of Architecture, University of London.*—The Board reported that the Medal had been awarded to Miss A. E. Hall.

*The R.I.B.A. (Archibald Dawnay) Scholarship.*—The Board reported that the following awards had been made:—

- (1) An R.I.B.A. (Archibald Dawnay) Scholarship of £75 for the year 1929—1930 to Mr. F. J. M. Ormrod (School of Architecture, University of Liverpool).

- (2) An R.I.B.A. (Archibald Dawnay) Scholarship of £50 for the year 1929—1930 to Mr. J. F. Ward (Welsh School of Architecture, Cardiff).

- (3) A second year R.I.B.A. (Archibald Dawnay) Scholarship of £75 for the year 1929—1930 to Mr. L. A. Chackett (Birmingham School of Architecture).

- (4) A second year R.I.B.A. (Archibald Dawnay) Scholarship of £50 for the year 1929—1930 to Mr. J. Hughes (Liverpool University School of Architecture).

*The R.I.B.A. Maintenance Scholarship, 1929.*—The Board reported that the following awards had been made:—

- (1) An R.I.B.A. Maintenance Scholarship of £100 to Mr. H. Bennett, of Manchester.
- (2) An R.I.B.A. Maintenance Scholarship of £100 to Mr. F. W. Wright, of Sheffield.
- (3) The R.I.B.A. Fourth and Fifth Years' Maintenance Scholarship to Mr. G. G. Laidler, of the Architectural Association School of Architecture.

The following have been granted renewals of their Maintenance Scholarships for the year 1929—1930:—

- (1) Mr. J. F. D. Wilson (Architectural Association School of Architecture), A.G.B.I. Maintenance Scholarship, £100.
- (2) Mr. A. K. Brown (School of Architecture, Armstrong College, Newcastle-upon-Tyne), R.I.B.A. Maintenance Scholarship, £50.

*Old King's House, Jamaica.*—The Council passed a resolution strongly supporting the movement for repairing the Old King's House, Spanish Town, Jamaica, which was damaged by fire in 1925.

*The Allied Societies' Conference.*—On the recommendation of the Allied Societies' Conference it was decided to add representatives of the following bodies to the Conference:—

The East Anglian Society of Architects.

The Suffolk Association of Architects.

The Hertfordshire Chapter of the Essex, Cambridge, and Hertfordshire Society of Architects.

*The Tribunal of Appeal: London Building Acts.*—Sir Banister Fletcher was re-appointed as a member of the Tribunal of Appeal for a further term of five years.

*The Fifth International Congress of Building and Public Works Contractors.*—The following delegates were appointed to represent the R.I.B.A. at the above Congress, which will be held in London in May 1930:—

Mr. W. E. Vernon Crompton.

Mr. Arthur Crow.

Mr. T. E. Scott.

Mr. Sydney Tatchell.

Mr. W. E. Watson.

*British Engineering Standards Association Committee on Standardisation of "Fire Resistance" and "Incombustibility."*—On the recommendation of the Science Standing Committee Mr. P. J. Black [L.] was appointed to represent the R.I.B.A. on the above Committee.

*University of London Architectural Education Committee.*—Mr. Henry M. Fletcher (Vice-President) and Mr. L. Sylvester Sullivan (Chairman of the Board of Architectural Education) were re-nominated to represent



the R.I.B.A. on the University of London Architectural Education Committee.

*The Elmes Testimonial Fund.*—Mr. G. Hastwell Grayson [F.] was re-appointed as a Trustee of the Elmes Testimonial Fund.

*The Town Planning and Housing Committee.*—Colonel C. H. Bressey of the Ministry of Transport was appointed a member of the Town Planning and Housing Committee.

*The Architects' Benevolent Society.*—A grant of £150 was made to the Architects' Benevolent Society for the year 1929.

*The British Engineering Standards Association.*—A grant of £100 was made to the British Engineering Standards Association for the year 1929.

*The Australian Institute of Architects.*—The Australian Institute of Architects was formally admitted as an Allied Society of the R.I.B.A.

*The Essex, Cambridge and Hertfordshire Architecture Medal.*—The Essex, Cambridge and Hertfordshire Society of Architects reported that the Jury had awarded the Essex, Cambridge and Hertfordshire Architecture Medal for 1928 to Mr. Basil Oliver [F.], in respect of "The Rose and Crown," Cambridge.

*Exhibition of Drawings by the late Bertram Grosvenor Goodhue (H.C.M.).*—It was agreed to send a cordial message of thanks to Mrs. Goodhue and Professor William Emerson for their kindness in lending the late Mr. Goodhue's drawings to the R.I.B.A. for exhibition.

*The late Mr. Thomas Hastings (H.C.M.).*—Messages of condolence on the death of the late Mr. Thomas Hastings (H.C.M.), Royal Gold Medallist, were sent to his relatives and the American Institute of Architects.

*Membership—Election 1 February 1930.*—Applications for membership were approved as follows:—

As Hon. Associate, one application.

As Fellows, 12 applications.

As Associates, seven applications.

*Reinstatement.*—The following ex-members were reinstated:—

As Associates: A. R. Allen-Lodge.

Philip Evans Palmer.

James Wilfred Rough.

*Resignations.*—The following resignations were accepted with regret:—

Walter Harrison Fielding [L.].

Leonard Tibbs [Subscriber].

## THE R.I.B.A. INTERMEDIATE EXAMINATION.

NOVEMBER, 1929.

The R.I.B.A. Intermediate Examination qualifying for election as Student R.I.B.A. was held in London from the 8 to 14 November, and in Manchester from 8 to 13 November, 1929.

Of the 147 candidates examined 45 passed and 102 were relegated. The successful candidates are as follows, the names being in order of merit as placed by the Examiners: Alexander Robert Fordyce Anderson, Charles George Bath, Cecil Frederick Barker, Winston Edward Marston, Alan John Richard Marshall, Eric Sydney Smith, William Norman Cockburn, Albert Sydney

Pyne, Eric Bedford, Sydney Charles Hancock, Arthur Raymond Tipling, Arthur Chester Smith, David Mearns Massie, Philip Gerrard, Fred Winward, Charles Edmund Aspinall, Theodore Herzl Birks, Frederick Bowman, Castledine Kempton Brice, Herbert James William Broadwater, Jack Catchpole, Charles Alec Caven, Reginald Charles Chapman, Sidney Naylor Dickinson, George Fairweather, Francis Lambson Harman, William Frederick Howard, Frederick Johnson, Alfred Edward Kelsey, Harold Edwards Meredith, John Robert Moore, Francis Harry Edward Phillips, Arthur Ronald Pratt, Cecil Edward Reeve, Edward Thomas Salter, John Shackleton, William John Smith, Harry Alexander Snow, Edwin John Storry, Benjamin Harold Thompson, Harry Thornley, George Richard Todd, Charles Edward Westmoreland, Frank Whitehead, Beris Wrinch.

## THE EXAMINATIONS.

DECEMBER, 1929.

### THE FINAL EXAMINATION.

The Final Examination qualifying for candidature as Associate R.I.B.A. was held in London and Edinburgh from 4 to 12 December, 1929.

Of the 76 candidates examined 34 passed (9 in Part I only) and 42 were relegated.

The successful candidates are as follows:—Geoffrey Maurice Boon, Arthur Reginald Brechley, Ralph Herbert Brentnall, George Edward Bright, Thomas Barrington (Part I only), John Percival Chaplin (Distinction in Thesis), William John Paterson Cox, John Gordon Dower, David Ronald Duncan, Roderick Charles Fisher, Margaret Gillett (Part I only), Allan Daniel Aitken Haskins, Allan Johnson, Sidney James Kemp, William Charles Kemp (Part I only), Alexander Lawrence McMullen, Eric Moore Murrett, Frederick James Maynard, Charles Warren Neil, Ronald Francis Orfeur, Charles Edward Pickering (Part I only), Geoffrey Langford Price, Alfred Llewellyn Priest (Part I only), Herbert Francis Rea, Aubyn Peart Robinson, Victor Clare Lindon Saunders (Part I only), Godfrey Joscelyn Segar Segar-Owen, Robert Shaw, George Henry Shepherd, Stephen Frederic Soper (Part I only), Frank Reginald Steele, George Edward Tassell, Thomas Wynne Thomas (Part I only), Philip Oliver George Wakeham (Part I only).

*The Special Examination.*—The Special Examination qualifying for candidature as Associate R.I.B.A. was held in London and Edinburgh from 4 to 10 December, 1929.

Of the 20 candidates examined, 6 passed (1 in Part I only), and 14 were relegated.

The successful candidates are as follows:—Thomas Duffy, Robert Oliver Harris (Part I only), Leslie Stuart Stanley, George Swan Taylor, Richard Newton Wakeelin, William Edward Young.

*The Examination in Professional Practice for Students of Schools of Architecture recognised for exemption from the R.I.B.A. Final Examination.*—The Examination was held in London and Edinburgh on 10 and 12 December, 1929. Of the 67 candidates examined 44 passed and 23 were relegated.

The successful candidates are as follows:—Harold James Ashwell, Ian Baillie, Robin Cecil Dudley Boger, Ronald Bradbury, Ronald McConnal Butler, David Carr,



Edward Julian Carter, George Arthur Cassells, John Norris Cowin, Sidney Edward Thomas Coadin, Harold Harper Ellis, Evelyn Freeth, Arthur Bellham Grayson, Leonard David Harris, Norman Basil Hillier, John Leslie Hughes, Elizabeth Stevenson King, William Hardie Kininmonth, Ralph Stephenson Lavers, Guy Reginald Linfield, Alfred Ian Duncan Macdonald, Hugh Sinclair Macdonald, John Leslie Martin, Robert Hogg Matthew, James Mackie Murray, John Athelstan Victor Nisbet, Vithal Mukund Patker, William Henry Milner Penn, Beatrix Janet Phillipson, Herbert Gould Porter, James Maude Richards, Hugh Michael Ross, Stanley Henry James Roth, Robert Duncan Scott, Charles William James Smeed, Charles Hubert Broad Smith, James Smith, Ellis Edward Somake, Stephen Sutherland, Hubert John Tanton, Patricia Beaton Webster, Albert Edwin Westernum, Samuel Dennis Wheeler-Carmichael, Harold Herbert Wilkinson.

#### L.C.C. REGULATIONS FOR EXCESS-OF-CUBE BUILDINGS.

The following is an extract from the Report by Mr. G. Topham Forrest, the Architect to the London County Council, on the Construction and Control of Building in America.

"Generally speaking, the Council's practice to limit the height of excess-of-cube buildings to 80 feet to the top of the topmost storey is found to cause extreme annoyance to building owners who desire to erect trade or warehouse buildings having greater extent than the statute specifically allows. This annoyance is aggravated in their eyes by the fact that the 1804 Act permits ordinary building to a height of 80 feet plus two storeys in the roof, and complaint is generally made that from this point of view the practice of the Council as regards excess-of-cube buildings hinders commercial development and should therefore be modified."

Architects who have experienced the circumstances referred to are invited to communicate with the Honorary Secretary R.I.B.A., Building Acts Committee, giving brief details of particular cases.

The Committee have this matter under special consideration, and all available data is being collected.

## Notices

### THE SIXTH GENERAL MEETING

The Sixth General Meeting (Ordinary) of the Session 1929-30 will be held on Monday, 20 January 1930, at 8.30 p.m., for the following purposes:

To read the minutes of the General Meeting (Ordinary) held on Monday, 6 January 1930; formally to admit members attending for the first time since their election.

The President, Sir Banister Fletcher, F.S.A., to deliver his address to students and to present the Prizes and Studentships awarded by the Council for 1930.

Mr. W. H. Ansell, M.C. [F.] to read a criticism on the designs and drawings submitted for the Prizes and Studentships 1930.

### ELECTION OF MEMBERS.

3 FEBRUARY 1930.

An election of members will take place at the Business General Meeting to be held on Monday, 3 February. The names and addresses of the Candidates (with the

names of their proposers) found by the Council to be eligible and qualified for Membership according to the Charter and Bye-laws and recommended by them for election are as follow:—

#### AS HON. FELLOW (1).

LLEWELLYN: SIR WILLIAM, K.C.V.O., P.R.A., Lurde Blundell House, Campden Hill, Kensington, W.8. Proposed by the Council.

#### AS HON. ASSOCIATE (1).

BLOUNT: COLONEL EDWARD AUGUSTINE, C.B.E., F.S.I., Chevalier de la Legion d'honneur, Agent to Lord Howard de Walden, Southwell, Worth Sussex. Proposed by the Council.

#### AS FELLOWS (10).

ARCHER: HOWARD DENNIS [d. 1919], P.O. Box 58, Nairobi, Kenya Colony. Proposed by T. W. Troup, Joseph Hill and W. Harding Thompson.

BURKETT: PERCY VIVIAN [d. 1921], 107 Jermyn Street, S.W.1; 66 Pembroke Villas, W.11. Proposed by Sir Banister Fletcher, Digby L. Solomon and M. N. Castello.

EPHRAÏM: CECIL JACOB [d. 1921], 107 Jermyn Street, S.W.1; 74 Wildwood Road, N.W.11. Proposed by Arthur Keen, S. B. Caulfield and Basil Oliver.

FITZGERALD: GEORGE EDMONDS [d. 1909], 35 Gresham Buildings, Pretoria, South Africa; 833 Church Street, Arcadia, Pretoria, South Africa. Proposed by J. Lockwood Hall, Robert Howden and Ernest M. Powers.

HASELDINE: CYRIL FRANCIS WILLIAM [d. 1919], King's Walk, Nottingham; Papplewick, Nottinghamshire. Proposed by George H. Willows, Alfred J. Thraves and H. Alderman Dickman.

And the following Licentiate who have passed the qualifying Examination:—

ADAMSON: JAMES ROBERTSON, 19 Silverwell Street, Bolton; 417 Church Road, Bolton. Proposed by John D. Gass, Arthur J. Hope and R. Hermon Crook.

BIRD: HUBO RITCHIE, St. Thomas' Gate, Brentwood, Essex; Inglewood, Mount Avenue, Hutton, Essex. Proposed by Chas. J. Dawson, Wykeham Chancellor and Henry W. Allardyce.

ODDEN: CLEMENT COPELAND, 42 Silver Street, Leicester; The Cottage, Ashfield Road, Leicester. Proposed by J. Stockdale Harrison, Arthur H. Hind and Albert Herbert Scott.

SCOTT: WILLIAM, 19 Silverwell Street, Bolton; "Kendalmore," 477 Chorley New Road, Bolton. Proposed by John Bradshaw Gass, Arthur J. Hope and Joseph Foy.

And the following Licentiate who is qualified under Section IV, Clause 4 (c) of the Supplemental Charter of 1925:—

LAKE: GEORGE FREDERICK, 62 Park Avenue North, N.8. Proposed by H. W. Hetherington Palmer, Henry Tanner and Fredk. R. Horns.

#### AS ASSOCIATES (7).

BAYNE: OSCAR ANDREW [Final], 100 Tooronga Road, Hawthorn, Melbourne, Australia. Proposed by Kingsley A. Henderson, Evan Smith and H. W. Tompkins.

CHAPLIN: SUREXY GEORGE [Final], 27 Doughty Street, W.C.1. Proposed by Professor A. E. Richardson, E. Stanley Hall and Arthur Stratton.

HEATH: CLIVE PATTERSON [Passed five years' course at Sydney University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], 48A Addison Road, Manly, Sydney, Australia. Proposed by Professor Leslie Wilkinson, Sir Charles Rosenthal and Alfred S. Hook.

HODGET: GEORGE IAN CAMPBELL [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], Hamborough, Hursell, Woking, Surrey. Proposed by Howard Robertson, J. Murray Easton and E. Stanley Hull.



**HIRST**: WILLIAM [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], 24 Davenport Road, Durban, Natal, South Africa. Proposed by Howard Robertson, J. Murray Easton and Robert Atkinson.

**PESKETT**: HARRY MICHAEL [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], 2 Ranelagh Road, Redhill, Surrey. Proposed by Howard Robertson, Ernest G. W. Squister and J. Murray Easton.

**WHITTINGHAM**: ARTHUR BENSLY, M.A. (Cantab.) [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], The Bishop's House, Ipswich, Suffolk. Proposed by Howard Robertson, E. H. Evans and Louis de Soissons.

#### ANNUAL SUBSCRIPTIONS.

Members' subscriptions, Students' and Subscribers' contributions became due on 1 January 1930.

The amounts are as follows:—

Fellows	£5	5	0
Associates	£3	3	0
Licentiates	£3	3	0
Students	£1	1	0
Subscribers	£1	1	0

#### COMPOSITION OF MEMBERS' SUBSCRIPTIONS FOR LIFE MEMBERSHIP.

The attention of Members is drawn to the scheme for compounding subscriptions for Life Membership which was approved by the General Body at the Business Meeting held on Monday, 5 December 1927.

Fellows, Associates and Licentiates of the Royal Institute may become Life Members by compounding their respective annual subscriptions on the following basis:—

For a Fellow by a payment of £73 10s. (70 guineas).

For an Associate or Licentiate by a payment of £44 2s. (42 guineas); with a further payment of £20 8s. on being admitted as a Fellow.

Provided always that in the case of a Fellow or Associate the above compositions are to be reduced by £1 1s. per annum for every completed year of membership of the Royal Institute after the first five years, and in the case of a Licentiate by £1 1s. per annum for every completed year of membership of the Royal Institute.

## Queries and Replies

(A large number of questions on points of professional practice and technical interest are addressed to the Practice and Science Standing Committees and to other Committees of the Institute.)

The Council, on the recommendation of the Science Standing Committee, have decided to adopt the procedure of publishing such queries in the *JOURNAL* when on matters of general interest, together with the replies of those members who, having special knowledge and experience of the particular questions, have been asked to express their opinions upon them. The scheme is based upon that adopted by the Surveyors' Institution.

The identity of the member seeking the information will not be disclosed, but the replies published will be signed by the members who have supplied them.]

*Query No. 3.*

#### WEATHER-PROOF ROUGHCAST.

I should like to ask for particulars of a really satisfactory form of roughcast for precluding damp and rain.

#### Reply to Query No. 3.

The weather resistance of roughcast is dependent upon the use of suitable materials and the exercise of proper care in execution. With due precautions, Portland cement roughcast, applied in the usual manner in two coats, may be relied upon to keep out damp and rain.

In roughcasting, the following points should be observed:—

(1) The sand must be quite clean and should be "well graded," that is, varied in size from very coarse to very fine. To obtain a satisfactory grading, it is sometimes necessary to obtain the sand from several sources and to have it thoroughly mixed.

(2) In cases where it is desired to mix the coarse aggregate with the final coat, it is desirable that this material should be graded also.

(3) The cement must be in sound condition. A finely ground cement is preferable.

(4) The mix should not be too rich. Probably more failures are attributable to this fault than to any other. One volume of cement to three-and-half of sand is generally quite rich enough if the sand is properly graded. In the event of the sand being too uniform, it will contain a higher percentage of voids, and will require a higher proportion of cement to fill the interstices; but any excess of cement tends to induce shrinkage cracks.

(5) Only just enough water should be used to reduce the material to a sufficiently plastic condition. The less water, beyond that necessary for hydration, the better.

(6) If the roughcast is to be laid on brickwork, the joints must be raked out, and all loose mortar and dust brushed away.

(7) Before the first coat is applied the work must be thoroughly wetted. The water should be allowed to soak in and, if necessary, the process should be repeated until the surface is in a suitable condition. It is important that the bricks should be wet enough to prevent their robbing the cement of its moisture, but, at the same time, it is necessary that the water should have "dried in" sufficiently for the surface to exert a certain amount of "suction." This insures a proper amalgamation of the rendering and the brickwork.

(8) The first coat, while still green, should be deeply "pricked up" (as in plaster work) to afford a key for the next coat.

(9) The second coat must not be applied until the first is thoroughly hard—the longer the interval between the coats the better—in order that any movement due to shrinkage may take place in the first coat before the application of the second.

(10) The work should be kept damp while setting. This is particularly necessary when exposed to sun. The most effectual method is to cover the roughcast with wet sacking or canvas. Should this be impracticable, the work should be periodically sprayed through a rose.

(11) Roughcast, when green, is more vulnerable to frost than is any other form of cement work.

(12) When pigments are incorporated with the roughcast, only such as are obtained from earths and minerals, innocuous to the cement, must be employed. It must be remembered that any such adulteration of the cement is in the nature of a dilution, and should never exceed 10 per cent (by weight) of the cement.

There are many waterproofing compounds on the market (mostly proprietary materials), good, bad and indifferent, which waterproof or not, as the case may be. Some of these are probably not permanent in their effect, and at best may be regarded merely as a substitute for proper materials and workmanship.

ALAN H. BARNES [L.].



# Competitions

## ACCRINGTON: NEW POLICE AND FIRE STATIONS.

The Accrington Corporation invite architects to submit, in open competition, designs for new Police and Fire Stations.

Assessor: Mr. Herbert J. Rowse [F].

Premiums: £250, £150 and £100.

Last day for receiving designs, 28 February 1930. Conditions of the competition may be obtained on application to the Town Clerk, Town Hall, Accrington. Deposit £2 2s.

## BLOFIELD: HOUSE PLANS.

The Competitions Committee desire to call the attention of Members to the following notice which has been issued by the Institute:—

"Members of the Royal Institute of British Architects and of its Allied Societies must not take part in the above competition because the conditions are not in accordance with the published Regulations of the Royal Institute for Architectural Competitions."

## GOSPORT: PLEASURE RESORT AND GROUNDS.

The Competitions Committee desire to call the attention of Members to the following notice which has been issued by the Institute:—

"Members of the Royal Institute of British Architects and of its Allied Societies must not take part in the above competition because the conditions are not in accordance with the published Regulations of the Royal Institute for Architectural Competitions."

## KING'S LYNN: PROPOSED NEW SCHOOL.

The Competitions Committee desire to call the attention of Members to the following notice which has been issued by the Institute:—

"Members of the Royal Institute of British Architects and of its Allied Societies must not take part in the above competition because the conditions are not in accordance with the published Regulations of the Royal Institute for Architectural Competitions."

## LIVERPOOL: PROPOSED PIER HEAD IMPROVEMENTS.

The Liverpool City Council propose to offer premiums of 1,000 guineas and 500 guineas in connection with a competition for the improvement of the amenities of the Pier Head.

(Conditions are not yet available.)

## ONGAR: COTTAGE HOSPITAL.

The Competitions Committee desire to call the attention of members to the fact that the conditions of this competition are not in accordance with the Regulations of the R.I.B.A. The Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime members should not take part in the competition.

## SWANSEA: MUNICIPAL BUILDINGS.

The Swansea Corporation invite architects to submit, in open competition, designs for new municipal buildings.

Assessor: Mr. Henry V. Ashley, V.-P.R.I.B.A.

Premiums: £750, £500, £300 and £200.

Last date for receiving designs, 18 January 1930. Conditions of the competition may be obtained on application to the Town Clerk, Town Hall, Swansea. Deposit £2 2s.

# Members' Column

## MESSRS. LANDER BEDELLS AND CROMPTON.

Messrs. Lander Bedells and Crompton, architects and surveyors, of 6 John Street, Bedford Row, W.C.1, have taken into partnership Mr. Harold K. Moss, A.R.I.B.A., of 3 Verulam Buildings, Gray's Inn, W.C.1. The style and address of the firm remain as at present.

## MESSRS. HARRY S. FAIRHURST AND SON.

Mr. HARRY S. FAIRHURST [F.] has taken into partnership his son Philip Garland Fairhurst, M.A., A.R.I.B.A. The practice will be carried on under the "firm" name of Harry S. Fairhurst and Son.

## CHANGE OF ADDRESS.

Mr. Kenneth Glover [F.] has changed his office address to 10 Saville Chambers, North Street, Newcastle-on-Tyne.

## PARTNERSHIP WANTED.

A.R.I.B.A., Young, experienced and enthusiastic; requires partnership in well-established practice, Southern district. Some capital available.—Reply Box 1130, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

## APPOINTMENTS VACANT.

### ARCHITECTURAL ASSISTANT.

Candidates must have passed the Association examination of the R.I.B.A., or possess special qualifications in architectural design. Salary £350 per annum.

### JUNIOR ARCHITECTURAL ASSISTANT.

Candidates must have suitable training and experience. Salary £262 10s. per annum, rising by annual increments of £12 10s. to £275 per annum.

Forms of application may be obtained on application, enclosing stamped addressed foolscap envelope, to Mr. F. Willey, F.R.I.B.A., 34 Old Elver, Durham.

Last day for receiving applications: 21 January 1930.

## OFFICE ACCOMMODATION WANTED.

Fellow, practising in London, desires office either in the West End or Adelphi. Would consider sharing drawing office, if private office available for own use.—Reply Box 7746, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

## OFFICE ACCOMMODATION.

SMALL furnished room, suitable for young architect or quantity surveyor, is available in the West End offices of an architect F.R.I.B.A. at an exceptionally moderate rental in exchange for small services rendered. Telephone, gas, electric light, cleaning, included.—Reply Box 1600, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

## ASSISTANCE OFFERED.

F.R.I.B.A. with long-established practice in West End, at present having slack period, wishes to meet another with busy practice whom he could assist with complete schemes or otherwise, working at his own office.—Reply Box 5120, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

F.R.I.B.A. who has carried out important works, but whose private connection has fallen off would be willing to help another architect in general office routine, sketch, plans, etc. Frequent R.A. exhibitor.—Reply Box 2780, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

F.R.I.B.A., having recently retired from large practice and finding retirement irksome, is desirous of assisting busy architect. Has carried out many important works, including those of the domestic, ecclesiastical and public building class—one of the latter costing £150,000. Is desirous of getting into touch immediately with architect in urgent need of assistance (even if only of a temporary nature) in London, the country, or abroad.—Reply Box 1197, c/o Secretary R.I.B.A., 9 Conduit Street, London, W.1.

# Minutes V

Session 1929-1930.

At the Fifth General Meeting (Ordinary) of the Session 1929-1930, held on Monday, 6 January 1930 at 8 p.m., Mr. Henry V. Ashley, Vice-President, in the Chair.



The attendance book was signed by 50 Fellows (including 24 Members of Council), 46 Associates (including 4 Members of Council), 5 Licentiates (including 2 Members of Council), 2 Hon. Associates, 1 Retired Fellow and a very large number of visitors.

The minutes of the Ordinary General Meeting held on 16 December 1929 having been published in the JOURNAL, were taken as read, confirmed, and signed as correct.

The Hon. Secretary announced the decease of:—

William Louis Lucas, elected Fellow 1913.

Segar Segar-Owen, elected Associate 1896, Fellow 1906.

John Lloyd Houston, elected Associate 1894.

John Duff, elected Licentiate 1910.

Charles Edgar Salmon, transferred to Licentiate Class 1925.

And it was Resolved that the regrets of the Institute for their loss be entered on the Minutes and that a message of sympathy and condolence be conveyed to their relatives.

The following members attending for the first time since their election were formally admitted by the Chairman:—

Miss Frances Barker [A.].

James H. Ecclestone [A.].

E. A. L. Martyn [A.].

The Secretary announced that the Council had nominated for election to the various classes of membership the candidates whose names are published in this issue of the JOURNAL.

The Chairman announced that by a resolution of the Council the following had ceased to be members of the Royal Institute:

*As Associate.*

Francis Henry Heppel.

*As Licentiate.*

Joseph Boyd.

Dr. Raymond Unwin [F.] having read a paper on "Regional Planning with Special Reference to the Greater London Regional Plan," a discussion ensued, and on the motion of Sir Edgar Bonham-Carter, seconded by Colonel C. H. Bressy C.B.E., a vote of thanks was passed to Dr. Unwin by acclamation and was briefly responded to.

The Chairman presented the R.I.B.A. Medal and Diploma for a building completed within the County of London during the three years ending 31 December 1928 to Messrs. J. Murray Easton and Howard Robertson, F.F.R.I.B.A., for their building, the Royal Horticultural Society's new hall, Greycourt Street, Westminster. Mr. J. Murray Easton briefly expressed the thanks of his partner and himself, and Sir Wm. Lawrence, a member of the Council of the Royal Horticultural Society, and Captain H. Wykeham, representing the firm of Messrs. Foster and Dicksee, Ltd., also spoke.

The Secretary having read the deed of award of prizes and studentships, made by the Council under the Common Seal, he sealed envelopes bearing the names of the successful competitors were opened and the names disclosed.

The proceedings closed at 10.10 p.m.

#### THE ARCHITECTURAL ASSOCIATION.

Six non-technical Lectures on "Present Day Architecture" have been arranged by the Council of the Architectural Association for the general public, and will be given on the following Saturday afternoons at 3 o'clock, at the Association's premises, 34-36 Bedford Square, W.C.1.

11 January.—"Architecture in Daily Life," Howard Robertson, F.R.I.B.A., S.A.D.G.

25 January.—"The House You Want," R. Randal Phillips, Hon. A.R.I.B.A. (Editor, *Homes and Gardens*.)

8 February.—"The Creation of a Garden City," Louis de Soissons, O.B.E., F.R.I.B.A., S.A.D.G. (Architect of the Welwyn Garden City).

22 February.—"Decoration and Furnishing," G. G. Wornum, F.R.I.B.A.

8 March.—"Old and New Architecture," Hon. H. A. Pakington, A.R.I.B.A.

22 March.—"Houses at Home and Abroad," Oswald P. Milne, F.R.I.B.A.

All the Lectures will be illustrated by lantern slides.

Tickets for admission to the whole of the lectures may be obtained free on application to F. R. YERBURY, Secretary, The Architectural Association, 36 Bedford Square, W.C.1.

#### ARCHITECTS' BENEVOLENT SOCIETY

(Insurance Department).

##### HOUSE PURCHASE SCHEME

(for property in Great Britain only).

The Society is able, through the services of a leading Assurance Office, to assist an Architect (or his client) in securing the capital for the purchase of a house for his own occupation, on the following terms:—

##### AMOUNT OF LOAN.

Property value exceeding £666, but not exceeding £2,500, 75 per cent. of the value.

Property value exceeding £2,500, but not exceeding £4,500, 66½ per cent. of the value.

The value of the property is that certified by the Surveyor employed by the Office.

RATE OF INTEREST, 5½ per cent. gross.

##### REPAYMENT.

By means of an Endowment Assurance which discharges the loan at the end of 15 or 20 years, or at the earlier death of the borrower.

##### SPECIAL CONCESSION TO ARCHITECTS.

In the case of houses in course of erection, it has been arranged that, provided the Plan and Specification have been approved by the Surveyor acting for the Office, and the amount of the loan agreed upon, and subject to the house being completed in accordance therewith, ONE HALF of the loan will be advanced on a certificate from the Office's Surveyor that the walls of the house are erected and the roof on and covered in.

NOTE.—In 1928, over £20,000 was loaned to architects under this scheme, and as a result over £100 was handed to the Benevolent Fund.

If a quotation is required, kindly send details of your age next birthday, approximate value of house and its exact situation, to the Secretary Architects' Benevolent Society, 9 Conduit Street, London, W.

Members sending remittances by postal order for subscriptions or Institute publications are warned of the necessity of complying with Post Office Regulations with regard to this method of payment. Postal orders should be made payable to the Secretary R.I.B.A., and crossed.

It is desired to point out that the opinions of writers of articles and letters which appear in the R.I.B.A. JOURNAL must be taken as the individual opinions of their authors and not as representative expression of the Institute.

##### R.I.B.A. JOURNAL.

DATES OF PUBLICATION.—1930.—23 January; 3, 22 February; 8, 22 March; 12, 26 April; 10, 24 May; 7, 21 June; 12 July; 9 August; 20 September; 18 October.



# Journal of the Royal Institute of British Architects

THIRD SERIES

VOL. XXXVII No. 6

25 JANUARY 1930

## Contents for 25 January 1930

	Page
ELMWOOD ROAD, LOOKING EAST .. .. .	Frontispiece
REGIONAL PLANNING, WITH SPECIAL REFERENCE TO THE GREATER LONDON REGIONAL PLAN By Dr. Raymond Unwin [F.]	181
DISCUSSION .. .. .	194
REVIEWS:	
G. K. GEBHINGS'S "METAL CRAFTS IN ARCHITECTURE." By George Drysdale [F.]	199
KLAUDER AND WISE'S "COLLEGE ARCHITECTURE IN AMERICA AND ITS PART IN THE DEVELOPMENT OF THE CAMPUS." By Arthur Barfield [F.]	200
MANNON AND DRURY'S "EXPERIMENTAL BUILDING SCIENCE." Vol. II. By H. D. Searles-Wood [F.]	201
PHOTOGRAPHS AND DRAWINGS OF THE BANS OF JAPAN. By Arnold Silcock [F.]	201
FROEY AND YOSHIMIZU'S "MODERN DAIKOKU ARCHITECTURE." By C. Lovett Gill [F.]	202
CLOUGH WILLIAMS-ELLIS'S "THE ARCHITECT." By Ronald P. Jones	202
EDITH A. BROWN'S "GREAT BUILDINGS AND HOW TO ENJOY THEM." By F.H.M.	204
BRUNO TAUT'S "MODERN ARCHITECTURE." By J.M.E.	204
FACADES OF BUILDINGS, OLD AND MODERN. By J.M.E.	204
GERALD K. GEBHINGS'S "WROUGHT IRON IN ARCHITECTURE." By D.T.F.	204
COMMUNICANCE	
REGIONAL PLANNING By G. Norburn [A.] and Dr. Raymond Unwin [F.]	205
THE LIBRARY .. .. .	205
OBITUARY:	
SIR LAWRENCE WYATER, K.B.E., F.S.A., HON. A.R.B.A. By Professor A. E. Richardson [F.]	206
KEITH DOMENY YOUNG. By William A. Prie [F.]	207
CHURCH CROSS BRIDGE .. .. .	208
ST. PAUL'S CATHEDRAL PRESERVATION .. .. .	209
WESTMINSTER ABBEY SACRISTY .. .. .	210
BRITISH SCHOOL AT ROME .. .. .	210
ALLIED SOCIETIES:	
ESSEX, CAMBRIDGE, AND HERTFORDSHIRE SOCIETY OF ARCHITECTS	210
WEST YORKSHIRE SOCIETY OF ARCHITECTS	211
NEW FORM OF CONTRACT .. .. .	212
STUDENTS R.I.B.A. .. .. .	212
PROBATIONERS R.I.B.A. .. .. .	213
ROYAL ACADEMY OF ARTS .. .. .	214
EXAMINATIONS .. .. .	214
NOTICES .. .. .	214
COMPETITIONS .. .. .	215
MEMBERS' COLUMN .. .. .	215
MINUTES .. .. .	215
A.B.S. INSURANCE SCHEME .. .. .	216





ELMWOOD ROAD, LOOKING EAST: DEVELOPMENT WHICH DOES NOT DESTROY THE AMENITIES





CIVIC CENTRE

## Regional Planning with Special Reference to the Greater London Regional Plan

BY DR. RAYMOND UNWIN [F.].

[A Paper read before the Royal Institute of British Architects on Monday, 6 January 1930.]

MANY will recall the fascination with which they first realised how the mysterious and beautiful form structure of crystallisation could be induced to spread through a formless solution. Some may remember how the molecules or atoms of a refractory mass might be stimulated by example; the introduction of a minute crystal of the substance being enough to rouse their traditional love of order; to cause the most active to 'set to partners, these starting an enthusiasm for their appropriate movements which inevitably, if gradually, spread through the whole mass.

The introduction of the principle of planning into human affairs that have long been allowed to develop haphazard has a similar effect. Once the order of a plan is established over a certain area, the boundary, where order ends and disorder commences, forms a line of nonconformity, stimulating

attempts to remove the irritation by spreading the order further and further. Within the short space over which the older generation of us can now look back, we have seen such a change in progress. We remember when buildings were generally considered in isolation. Then one or two examples of intelligent land planning and harmonious relations established between the buildings, as in Bedford Park, were dropped among us like the minute stimulating crystals. Thereafter incongruity between buildings and their surroundings was no longer accepted as inevitable; a sense of disorder and irritation was aroused. Those who felt the discomfort most keenly, sought to plan larger areas; and the order spread to more extensive sites, to whole villages, suburbs, and even new towns. Then came the sympathetic statesman, and in 1909 John Burns gave the power to local



authorities to spread this order over those parts of their district "likely to be used for building purposes"; a phrase fairly liberally interpreted. The planning could, however, no more be limited by local government boundaries than by the acreage of a single site. Active authorities began to plan in their neighbour's ground; then they formed groups or regional committees to extend the area; these groups further combined and we have now reached the stage of Greater Regional Planning Committees; and the end is not yet. Across the channel we may see provincial planning; across the Atlantic State and even Inter-State Planning Commissioners are actively at work. To-day, another sympathetic statesman, twenty years after, presides in the place of John Burns over the same Department; Mr. Arthur Greenwood has just said that the term Town Planning Act, having served its purpose, is now out of date: and he has promised extended powers. But planning cannot stop even at the greater region. Already main traffic matters are passing from local to national control; a Commission is sitting to consider the question of National Parks, and planning may be expected ere long to carry its crystalline structure to the natural limits set by the sea shore to our island home!

If the beauty of my crystal order simile tends at this stage to be overshadowed by the apparent rigidity of the mass, I believe the very newest science would come to my rescue, and explain that so far from being rigid, the crystal structure merely defines limits within which the utmost activity of atoms takes place, and would even suggest that the individuals composing the atoms may enjoy something very like free will and initiative. It will be safer, however, to abandon an analogy becoming embarrassing to traditional ideas, and to explain at once that the extension of the principle of planning to wider areas in no sense promotes rigidity, checks initiative, or curtails real freedom. The substitution in the crowd before the booking office window of a queue for a crush, so far from destroying any real freedom, greatly facilitates the satisfaction of the wish of each to obtain a ticket.

The site or regional plan, like the queue, greatly adds to the sum of effective liberty by defining the limits and protecting the sphere within which each can move without being obstructed by others; and by bringing that sphere into appropriate

relation with the many others with which each must have dealings. This general principle must be kept in mind, for it determines the legitimate limits of planning, as well as the proper relations between the several authorities who must undertake the work as its advantages spread to wider areas. If the site plan, having secured to the individual plot-holder space, prospect, and harmonious relations with the surrounding environment, needlessly restricts the initiative of the owner in detail of plan or design, then it has exceeded its proper function. In like manner the town plan, while securing harmony of surroundings and convenience of communications for each site, should leave plenty of scope for the exercise of freedom in site planning for which these larger advantages have afforded opportunities. If Regional Planning is to serve its proper purpose, that, too, must be made effective for solving the larger problems of distribution and intercommunication, without depriving the present Town Planning Authorities of the opportunity to plan their areas, or restricting their freedom to do so in accordance with local wishes, provided they respect the framework of the regional scheme.

One main reason which justifies the Minister in speaking of the Town Planning Act as growing out of-date, is that it does not give reasonable opportunities for regional planning, or adequate facilities for site planning. At present Regional Committees must be content to give advice only, or they must take over from their constituent local authorities the complete making of their schemes. The first alternative is ineffective, and must remain so because regional proposals will often be as much outside the province as they are beyond the financial resources of the individual local authorities. The second unduly deprives the local authorities of their proper freedom to plan their own district, and throws on the regional authority a mass of detail planning not easily to be coped with. Regional Planning Schemes should be made effective, therefore, without depriving the local authorities within the region of their freedom to make Town Planning Schemes for their areas. These schemes should in turn leave ample opportunity for more detailed site plans to be made from time to time, either by the planning authority or by owners or groups of owners. These facilities to make development or redevelopment schemes will be specially needed in connection with the



redevelopment of areas already built upon. The application of town planning to these areas is certainly essential to complete the substitution of planning for haphazard development.

A better example of the need for such planning could hardly be found than is furnished by the controversy about the Charing Cross Bridge. Every detailed aspect of the problem seems to have been discussed in isolation from the whole, the interest of the railway company, the navigation of the river, the connection of the approaches, the form of the bridge, and even the creation of terminal features; but no master plan for the district affected has been forthcoming. Such plan alone could bring these and many other seemingly conflicting views and interests into some coherent relation and proportion to each other. The importance to the area affected, near the geographical centre of this great city, cannot easily be exaggerated. The district is one ripe for redevelopment. Only such a plan can authoritatively set at rest the serious doubt whether the scheme is really the first piece of a fine new garment, or merely another patch on the seat of an old one. Without some master plan for the great urban regions, it is impossible to view each problem as it arises in true perspective, or to see its proper relation to the whole.

The extension of planning to the greater region, while it implies less preoccupation with buildings, streets, and other details of development, and involves the consideration of many new factors, nevertheless calls for little change in the main principles of design. Our buildings must fulfil the needs of their occupants, and conform to the science of building construction. The art of architecture is conditioned by these necessities. Rapid changes in either the use or the science may have a disturbing influence on traditional forms of expression, as we are realising! For town and regional planning there is emerging also a science of urban and rural development to which good designs must conform. This science, still so little known, is being disturbed no less by rapid changes of use and knowledge.

In each sphere like principles of design must be followed. Imagination must be applied first to appreciate, and then to create, those special values, whether of use or of beauty, which arise from bringing the various parts into right relations and proportions one to the other. In this way is unity

of design given to the larger whole. The principle applies to parts of a pattern traced on a flat background; to the grouping of walls, roofs and windows into a façade; to the disposition of



PATTERN DESIGNED ON PLAIN BACKGROUND,  
FROM THE FORUM, ROME

buildings and openings around a civic centre, or to the laying down of a pattern for distributing urban development over the undulating background of hill and dale, field and forest, forming the region.





ELEVATION: COMPILED, NOT DESIGNED

The main purpose of the plan is to secure the best distribution of the dwellings, the work and the play places of the people. The method should be to lay out this distribution in a convenient pattern on a protected background of open land. Only in this way can a right relation or good proportion be maintained between the developed areas and the open land. Here another serious obstacle to proper regional planning must be recognised. For no such secure background as this method of design presupposes is in fact available! All land is potentially building land, and the poor planner has to fall back on scraps of background, in the shape of open spaces, such as he can see some hope of purchasing. He must perforce be content with these oases in a limitless desert of potential building sites!

Nothing is more essential for good regional planning than power to secure an adequate background of open land. So long as anybody may build anywhere, and no effective power to control the distribution of building development exists, the evils of sporadic building and ribbon development will continue, in spite of anything we and the Council for the Preservation of Rural England

may say or do. Under Town Planning Schemes reasonable regulations can be made as to what class of building may be erected in each area, and as to the height and character of the buildings, without incurring liability for compensation. Any attempt, however, to determine where building may best be located, and where the background of open space should be preserved, involves a liability for compensation which no planning authority will face.

Regional planning in selecting the best areas for building development, and thus preventing sporadic building from spoiling the amenities of the land and entailing useless costs for services of all kinds, seeks to do for the lands of many owners that which any sane single owner would do in his own interests. The reservation of adequate background of open land, so far from diminishing the total value or the building increment, is likely to increase it. That the planning authority should be liable for compensation because the plan allocates where this increment may be realised, and where not, without diminishing its amount, is clearly unreasonable. The single owner will realise that by allocating building on certain lands and reserving others from such use, he will increase the value of the former and diminish that of the latter, but that on balance he loses nothing, and stands rather to gain by the added attractiveness and value of the estate, which his planning has produced. So also, when there are many owners, regional planning will not reduce the total value, but it may distribute differently the



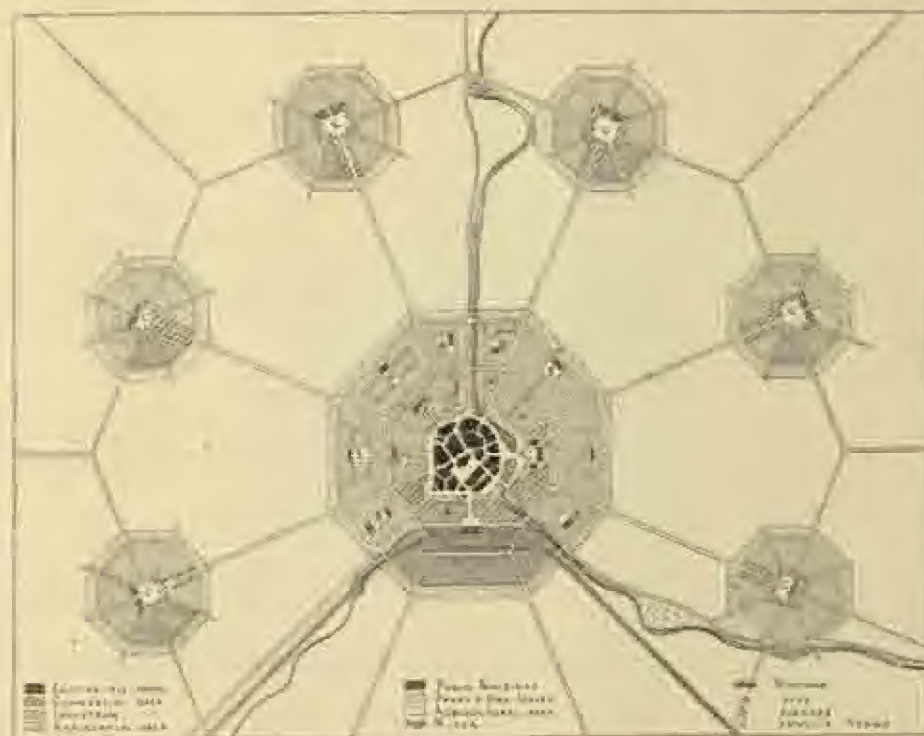
SIMPLE ELEVATION. Designed by the late Percy B. Houlton



prospect of reaping building increment. This is a matter for adjustment between the owners who gain and those who lose by the new distribution. It is essential to good regional planning that this principle should be recognised and that practical means, fair alike to the owners and to the planning authorities, should be devised for giving effect to it. No doubt there are many other amendments to the Town Planning Act which would be very valuable; but to technical men seeking to apply the right

3. Planning schemes should be made applicable to all land, whether built upon or not.

4. The present powers of zoning areas for different classes of building should be extended to permit the reasonable allocation of areas for building development and the reservation of other areas from such use, without compensation from the planning authority, but with power to adjust between owners any gain or loss of building prospect resulting.



BUILDING AREAS PLANNED ON BACKGROUND OF OPEN LAND

principles of planning and design to the use of land and its development for building, those which have been referred to seem the most important. They are:—

1. Regional planning must be made effective without depriving the local planning authorities of the right to make schemes for their districts within the regional framework.

2. Greater facility must be given in the Local Planning Schemes and in Regional Schemes also, for securing good site planning as land becomes ripe for development or redevelopment.

The preliminary study of the difficult task set before the Greater London Regional Planning Committee by the Minister of Health shows that only on the basis of powers such as those sketched can the work be adequately accomplished. That Committee is composed of representatives of the City of London, of the County and County Borough Councils, and, indirectly, through the various Regional Committees, of the other local authorities within the area having town planning powers. The district is that of the London and Home Counties Traffic Advisory Committee; it con-



tains 1,846 square miles, and is approximately represented by a circle 50 miles in diameter. The population approaches 9 millions; a number so vast that to provide for its natural increase and outward movement, involves annual developments equivalent in scale to a large town. The population of the County of London has been diminishing since the Census of 1901. Since then, the whole

about 56,000 per annum, Greater London has received on balance an immigration from outside of something like 10,000 annually. This change of flow is perhaps explained by the movement of industries into certain sections, to which attention was recently drawn by the Chief Factory Inspector. In spite of the good effected by Regional Planning Committees and Town Planning Schemes, and

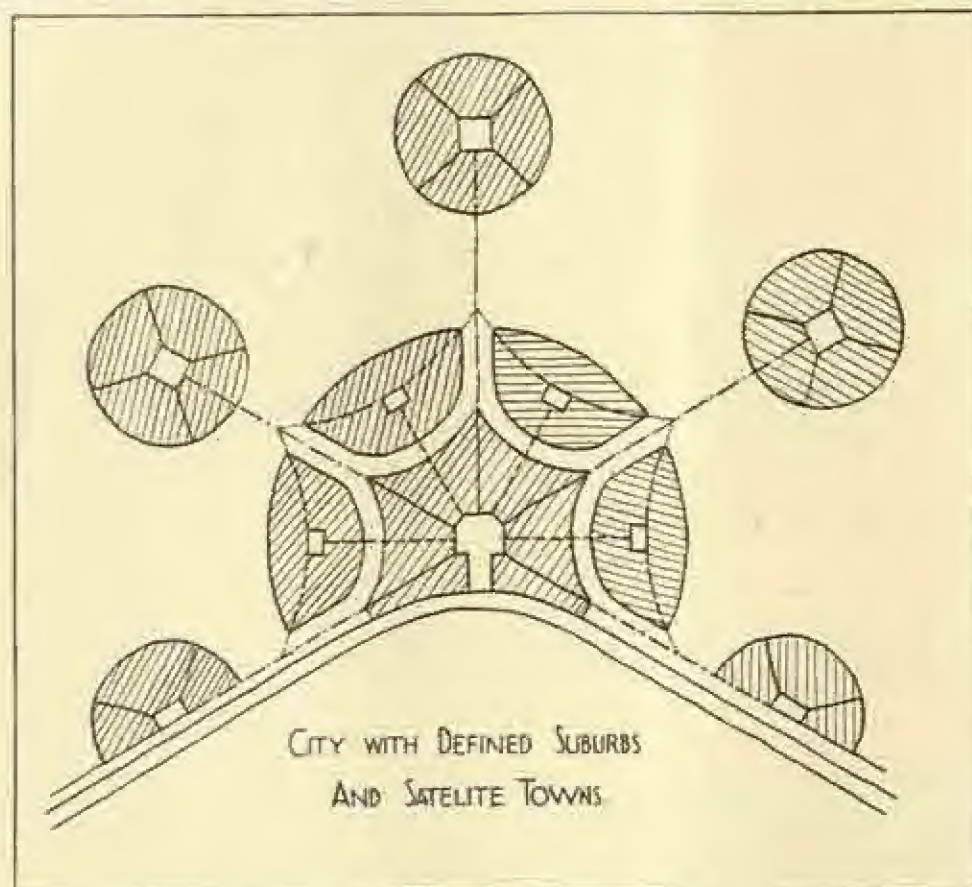


DIAGRAM OF TOWN GROWTH BY SELF-CONTAINED UNITS PLANNED ON BACKGROUND OF OPEN LAND

of its natural increase, due to excess of births over deaths, has been migrating outwards, plus the number representing the reduction. This population flowing outwards has mainly settled within the Greater London region; although in the decade preceding 1921 the whole of it was not retained there, and there was a balance of migration out of the Region amounting to about 35,000 annually. The estimates of the Census Authorities since 1921 show a turn of the tide in the outer region, and in addition to absorbing its own natural increase of

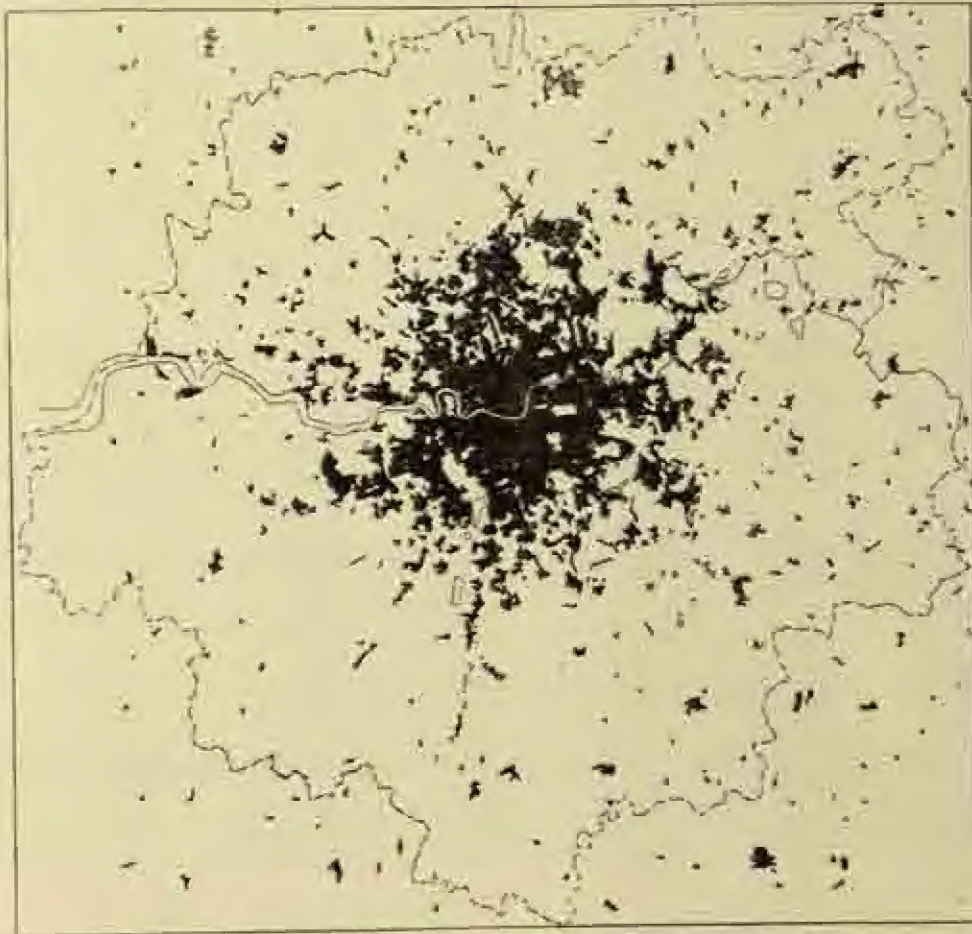
mainly owing to the want of power to locate development, this wide stream of population spreading over the Region, from the congested centre, and now also from outside, has settled haphazard, without any co-ordinating design. It has caused the outstanding example of sporadic building.

The rapid growth of motor transport removed the limitation previously set by the need to be within reasonable distance of a railway station. Any part of the Region is now accessible for those who



drive a motor car; and patches of sporadic building are breaking out all over the Region, which damage the amenities over areas of land, out of all proportion to that which is actually used for building purposes. Such development will also involve serious difficulty and expense in regard to the provision of sewerage and other services.

any increase in population which may reasonably be expected, still leaving the greater part of the area as open land. Provision could be made in generous measure for playing fields, parks, pleasure grounds, wild country reserves, allotments, or aerodromes, and for the many other purposes for which an urban population needs open land.



THE GREATER LONDON REGION: SHOWING THE MAIN DEVELOPED AREAS

The outward movement itself is not the evil. On the contrary it must be encouraged, unless the congestion of traffic in the centre is to become still more intolerable. Nor does the area of land required to give generous accommodation for this population, raise a difficulty. If development were guided into reasonably self-contained nuclei, forming attractive urban groups of different sizes, spaced out on an adequate background of open land, there would be ample space in the Region for

The science of urban development on which planning for the distribution of this great population must be based, though far from complete, is too extensive to permit more than one or two items to be referred to by way of example.

For locating industry, determining factors are economical transportation, ready access to a sufficient supply of labour, and facility both for receiving raw materials and for distributing the finished products, whether they are consumed



locally, in other parts of the country, or in foreign lands. The recent extensive development of industry in the area to the north-west of London is largely due to the coming of motor transport. From that district, while the London market remains easily accessible, practically the whole of the home market lying to the north and west can be reached without the delay of crossing London itself. Better bye-pass communications, such as the North Orbital Road, will probably tend to restore the balance of advantages in favour of the east-end and riverside sites for many types of industry. Other factors help to determine industrial areas, and much further study is needed in regard to them.

If productive industry may be regarded as the economic foundation of the social structure, commerce naturally follows. The expansion of commerce in the central area is the compelling force, supplementing a widespread desire on the part of many town dwellers to live in less congested and more rural surroundings; as such it is largely responsible for the great exodus to the outskirts. Two considerations dependent on a general plan may be mentioned, neither of which has received enough attention. The continued efficiency of a great organisation like the City of London requires that the most important operations, on which the welfare of the City and of the Empire depends, should be provided for in an area where they are not constantly hindered by crowds engaged in unimportant details, such as the purchase of gramophone records, or the passing to and fro from the hatter to the tailor. Such confusion in and about the board room, the manager's office, or the quarters of the general staff, would not be tolerated in any other organisation.

The second consideration arising from the growing size of London's business centre is the reservation in immediate connection with that centre, of certain carefully selected and adequately protected residential areas, to accommodate comfortably the selected staffs which should be within call in connection with great enterprises. Planning of the built up areas can alone bring into play these principles of redistribution in reference to central functions. Large commercial and retail trade organisations are showing a tendency to maintain only the essential central functions in the congested areas; and to decentralise such departments as the storage of records, or the conduct of routine

business, which can function as well or better outside. These tendencies deserve encouragement from the city planner.

The location of population moving to the outskirts can be arranged in accordance with like knowledge of their needs. Much is required in addition to the dwellings themselves. Shops from which to obtain their daily supplies, schools for the children, and places of amusement or worship are examples. The requirements of populations enjoying different standards of living, and the economical units for supplying them, are ascertainable within limits where judgment can reasonably be exercised. In rural districts about one shop for every 50 persons is the average proportion. In the large towns one for every 100 persons would be nearer, the average size of the shop being sufficiently larger to outbalance the increased degree to which town dwellers frequent shops. Average figures indicate that while one grocer's shop per 1,000 of the population may flourish, a furniture dealer may need 3,000. A musical instrument seller, or a dealer in sports articles, on the other hand, may hardly find sufficient customers among less than 10,000 or 15,000 people. Investigations in the New York Region have given an average figure of 50 feet of shop frontage for every 100 of the population. This would mean on the rural basis referred to above, 25 feet per shop, a remarkably reasonable figure, considering the difference between English rural and American urban conditions.

A number of such considerations suggests that units of from 4,000 to 6,000 people are sufficient to support a fair local shopping market for the supply of daily needs. Three such units, so combined that they could make use of one shopping centre, would be sufficient to support a very complete equipment of retail traders, and to add new possibilities for the maintenance of an adequate local recreation centre, institute, theatre or what not.

A reasonable proportion of open land for playing fields and pleasure grounds should be reserved in connection with each unit of urbanised population. To provide adequately for those who wish to play open-air games of all kinds in an urban area, there should be provided 7 acres of land for every 1,000 of the inhabitants. This would represent a need of from 28 acres for a 4,000 unit of population to 105 acres for a 15,000 unit. Experience further indicates that about one tenth of urbanised areas



should be available for public open spaces for the enjoyment of open air life. As confirming this estimate, it is interesting to find that about double this proportionate area is already in use at Letchworth, where availability and ease of access are at their maximum. For the Greater London Region,

suitable for residential development, may afford good playing fields and belts of open land. If, however, belts of open space are required for the purpose of dividing or isolating residential units, even wide valley belts will be less effective than strips running along the ridges. The preservation



RAEBURN, NEAR NEW YORK. A TOWN PLANNED FOR THE MOTOR AGE

this standard indicates a present need for about 200 square miles of open space and playing field.

As regards amenity, provided that the surrounding area can be protected from sporadic development, compact units of population of 4,000 to 6,000 people, and well designed groups of such units, can remain so nearly in touch with open country as to secure many of the advantages of country life. The selection of southern slopes which afford the best sites for such residential units would keep the northern slopes free to afford a rural prospect. Valleys and flat meadows less

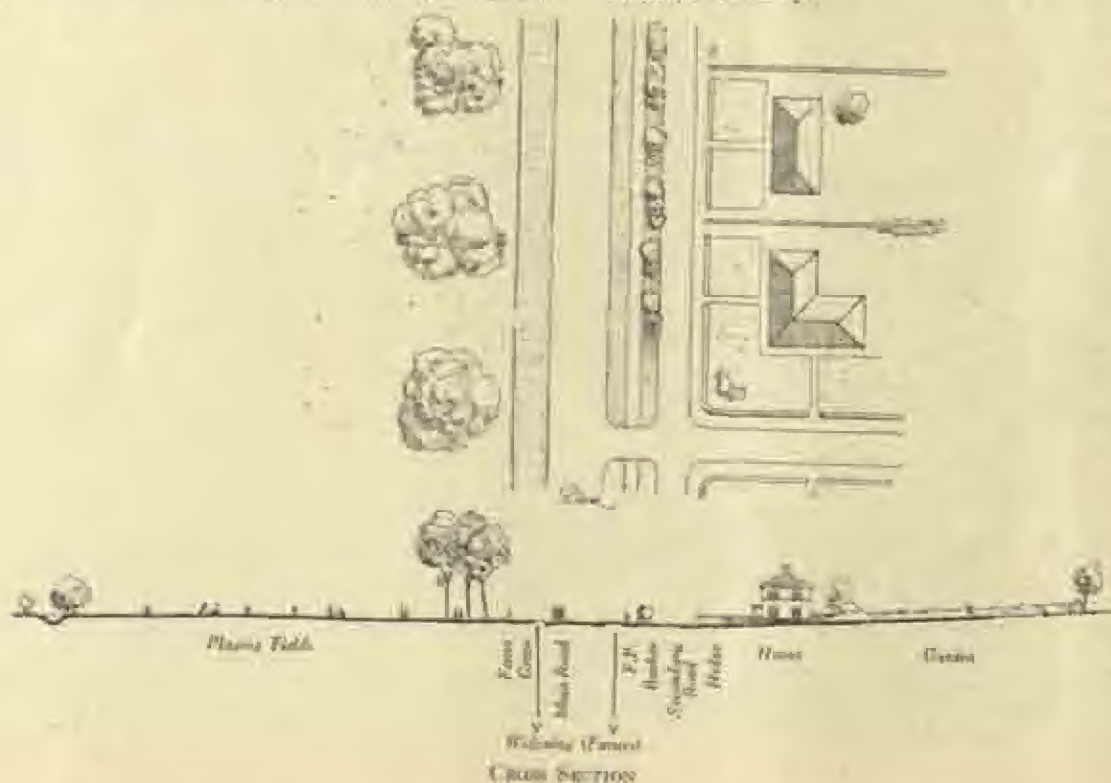
of the sky line is more effective to secure rural outline to a view, than the preservation of much wider lands in the hollow.

That the better distribution of industry and population may result in the reduction of traffic congestion, the units of population should be made as self-contained as possible. While the best means of intercommunication for necessary movements is desirable, the congestion of this useful traffic by large volumes of that which is due to the bad placing or faulty relations of the different parts, is thoroughly harmful. The



growth of motor transport which has extended the possible range for sporadic development, has also changed the character of traffic problems. To meet this, new types of road and methods of road planning are now needed. The outcry against ribbon development has laid stress on the destruction of amenity. Destruction of life, and obstruction of through traffic are equally serious results of unsuitable development on main road frontages. The motor car has rendered impossible the joint use of highways for traffic and for building frontage.

development should take place in compact units from which convenient access to the highway is arranged, but which are set back from it; and so planned that local intercommunication can take place with the minimum need for crossing the main highway. The North Orbital Road, which is likely to be one of the next to be put in hand, affords a good opportunity for demonstrating these principles, which are as essential for safety, economy, and efficiency, as they are for the preservation of amenity.



Highways, in future, should be kept free from the obstruction and danger caused by numerous branch roads, or carriage drives, and by turning, standing, and crossing vehicles. The safety of the inhabitants must be provided for by arranging service roads and footpaths giving access from the dwellings to shopping centres, schools or other resorts, and reducing to a minimum the need to cross main highways. This principle is now so clear, that general effect should be given to it. No frontage development should be permitted on highways in future, without the provision of subsidiary service roads. As far as possible

The few items referred to must suffice as examples only of a wide range of facts and relations forming the science of urban development. It is these and many similar considerations which must determine the main lines of distribution. The art of planning consists in bringing them all into such appropriate relations and good proportions that a coherent whole will be created, and will combine the many developments into a design on the background of open land, harmonising with the nature of the site. Thus there may be given at least the opportunity for a beautiful environment, out of which a good human life may grow.

(Discussion overleaf on page 194.)





PARKWAY TREATMENT OF HIGHWAY



## Discussion

MR. HENRY V. ASHLEY (VICE-PRESIDENT) IN THE CHAIR.

Sir EDGAR BONHAM CARTER, in proposing the vote of thanks to Dr. Unwin, said: There is, perhaps, no subject which is of so much importance to Londoners as the regional town planning of London. It is a problem which affects every Londoner most intimately and closely. If, for instance, he lives in Park Street at the back of Park Lane, the outlook from his house may at any time, owing to the want of town planning regulations, be blocked by the erection opposite on that 40-foot street of a building 80 feet in height with the additional height of the roof: if he wishes to get to these offices in Conduit Street to attend a meeting of the Institute, or upon the invitation of your Council to eat an excellent dinner, he finds the difficulties of the traffic are so great that he is likely to arrive late; if he works at Slough, he will find large numbers of factories but no house in which to live: if, on the other hand, he lives at Becontree on the admirable housing estate, which has been built by the London County Council, he will find large numbers of houses but few factories in which to work.

Most of us probably knew, even before hearing Dr. Unwin's address, that under the existing law the town planning of London will not turn out satisfactorily: that the results will be disappointing. But the general public are not aware of the fact. Dr. Unwin has given us this evening an authoritative statement that the existing town planning powers and machinery are inadequate. That statement is specially important because it is authoritative. Coming from him, it must draw the attention of the public to the subject, and will, one may hope, lead to its receiving the attention it deserves.

Dr. Unwin has not only told us that the existing town planning powers are inadequate, he has made valuable constructive suggestions as to how they should be made adequate.

He has told us that if the town planning in London is to be a success, it is necessary in the first place that the plans of the Regional Town Planning Authorities should be made effective. He might, I think, have added that it is also necessary to consider whether some of the minor Town Planning Authorities of Greater London are the right authorities to exercise town planning powers.

Secondly, he has suggested that Town Planning Authorities should be empowered to allocate areas for building development, and reserve other areas from such use without compensation; and he has clearly pointed out the great injustice of the present law of compensation to Local Authorities who, if they reserve an area from building, have to pay compensation for the building value, whereas they do not get the building value; it is transferred to another land owner. That is a great injustice and we must hope that Parliament will remedy this injustice. The injustice is so flagrant that anyone who understands the position—I admit it is somewhat difficult—will clearly see that the Local Authority is paying for something which it does not get. It is true that the owner who is compensated may be losing building

value: but some other land owners are getting the benefit which is being paid for by the Local Authority. The right remedy is that suggested by Dr. Unwin, namely, that the other land owners should arrange to compensate the land owner who is being deprived. Thirdly, Dr. Unwin has told us—this is not new, but it has got to be repeated again and again until the law is amended—that town planning powers must be made applicable to all land, whether it is built on or not.

Dr. Unwin has made other suggestions in the course of his address, but I believe that the three which I have mentioned are the most important. I hope he will carry them further, and will work them out in more detail. I do not think that he should have much difficulty in doing so. One has only to cross the sea to find that in other countries many town planning powers are in force which we have not yet got in London. I have served much of my time in a rather distant province, in a not very progressive country, Turkey, and there I found that no one could start a town or any building development without the consent of the Local Authority. That is rather surprising to us, perhaps, but it is good sense. For is not land development a matter of partnership—at any rate, as we do it in this country—between the Local Authority and the land owner? Is it reasonable that a land owner should be allowed to develop his land where he likes, when he likes, and how he likes, regardless of the fact that such development may deteriorate the property of other landowners, and impose heavy financial liabilities on the Local Authorities. If, as I suggest, land development under modern conditions necessarily imposes liabilities on the Local Authorities, it is reasonable that they should have some voice in determining where and when it should be allowed. That is the view which is taken in many countries abroad. I have instanced Turkey: it is true also in parts of Germany and in South Africa.

Colonel C. H. BRESSEY, C.B.E. (Chief Engineer, Ministry of Transport), in seconding the vote of thanks, said: In the earlier passages of his very stimulating paper, Dr. Raymond Unwin invokes first principles—the process of crystallisation, the activities of molecules and other phenomena with which we are all expected like Macaulay's schoolboy to be familiar; then somewhat to my disappointment he parachutes down from these lofty heights to such mundane and controversial matters as the Charing Cross Bridge which I am precluded, by my official position, from discussing. Turning from these dangerous topics, let me hark back to first principles and raise the fundamental question which dictates the form assumed by all suburban development, namely, cooking. Rightly considered every suburb is a cluster of individual homes, and every home viewed from a material standpoint is a weatherproof shelter for a cooking range.

Now let us picture dispassionately what happened this morning between 6 and 8 o'clock. Five million of our country women stood in front of five million cooking ranges, each frying 4 or 5 rashers of bacon (I say nothing



of poached eggs at their present price). The aggregate heat and labour lavished on this operation would be sufficient to cook all the pigs in the United Kingdom. On bright Sunday mornings like yesterday, when people should be sunning themselves on their way to church, the same five million devoted women were each busily engaged in cooking either small sirloins of beef or half legs of mutton—far too small to yield good results either economic or culinary.

The assumption that underlies this deplorable waste of energy, namely, that every household must necessarily have its own stove and do its own cooking is a survival of barbarism. A few centuries ago, every house had to possess its own well, its own cesspool, its own brewhouse, its own wash-house, even its own spinning wheel, but thanks to the growth of the co-operative spirit which is the basis of civilisation, we have learned to dispense with nearly all this domestic paraphernalia. The last enemy to be overcome is the cooking range, which enables and encourages our fellow-countrymen to indulge their depraved lust for ribbon development along our beautiful new arterial roads. Just as, according to Napoleon, armies march on their stomachs, so does ribbon development crawl forward on cooking ranges.

Let the five million women have the pluck to say "we are not all of us good cooks and we refuse to waste time in frying single rashers of bacon, when a central cook-house could fry them wholesale, more efficiently, more cheaply and with a hundredth part of the labour." Such a declaration would sound the death-knell of ribbon development. Our dwellings would thenceforth have to be tidily grouped in charming clusters round a central green with a common dining-room and cook-house as the principal feature of the longer side of the quadrangle. A hot water circulating system would radiate from the cook-house through all the dwellings.

English citizens would then have the choice of a dozen joints on Sunday instead of being restricted to beef or mutton on alternate Sundays. Cold mutton would cease to be the staple dish on weekdays. Thanks to better cooking, we should become an *À la carte* capable of striking terror into undersized foreigners like Carnera.

Four hundred years ago, one of the greatest of all Englishmen, Sir Thomas More, had a glorious vision of collective cooking as the only reasonable method of nutrition. Listen to his description of housekeeping in Utopia: "Moreover every street hath certain great large halls set in equal distance one from another, everyone known by a several name —. And to everyone of the same halls be appointed 30 families, on either side 15. The stewards of every hall at a certain hour come into the meat markets where they receive meat according to the number of their halls. To these halls at the set hours of dinner and supper cometh all the whole ward warned by the noise of a brazen trumpet . . . It were a folly for citizens to take the pain to dress a bad dinner at home when they may be welcome to good and fine fare so nigh hand at the halls, where no supper is passed without music."

I hope that when next Dr. Raymond Unwin addresses us on the subject of which he is an acknowledged master, he will collaborate with a Mistress of Domestic Economy

and entitle his lecture "Cookery, the Key to Town Planning."

The CHAIRMAN: The subject is now open for general discussion. As it is now getting late, I must ask subsequent speakers to restrict their remarks to five minutes.

Mr. C. R. ASHBEY (F.) (Late Civil Adviser to the Military and Civil Administrations in Palestine): I have had the privilege of reading Dr. Unwin's address beforehand, and he also allowed me to see the recommendations which he put up to the Government from his Regional Town Planning Committee. I have studied the paper with great care. I should accept all the "general principles of planning" laid down by him, though I would wish to make one reservation, which I think he will probably agree to. It refers to what he calls the "background of open land"; this must be preliminarily considered from the point of view of history and aesthetics, *i.e.*, if we have two areas of open background land, the one agricultural, the other having historic or aesthetic interest, the latter must take precedence. Questions primarily of engineering, of finance, of commerce, of politics, are important and have their place, but unless we, as town or regional planners, get the historic and the aesthetic issues right to begin with, our regional plan will fail. It will, I think, always be found that when they are got right at the outset, the other things fall in to place, and this is necessarily so because what is vital in good planning has its origin in national history and our sense of beauty, enshrined as both are in the countryside and its landscape.

Sir THEODORE CHAMBERS, K.B.E.: I think that Colonel Bessley underlined the essential trouble of this whole question, namely, the delimitation of the spheres of individualism and collectivism. It is in trying to delimit these spheres to-day that nine-tenths of our difficulties arise. This country is intensely individualistic. It is not going to put up easily with Mussolini's methods. It has got to devise, in keeping with that intrinsic character which has permeated the country for centuries, a machinery which, as far as possible, by common consent, delimits collectivism and individualism, and works out, in the process of town planning, that which is to the ultimate benefit of the community. It seems to me that the greatest difficulty we are up against to-day in town planning areas not yet built upon, and still more so in the replanning of built-up areas, is, that we are faced with a haphazard division of land between owners. Little bits of land belong to different people, land of curious shapes and curious lay-out and relationship to their environment. These conditions are incompatible with the best development of the interests concerned.

All architects and builders are battling with this problem and many are working on sites unsuitable for buildings for particular purposes. They are having to mutilate their designs and get the best result they can in the difficult circumstances of the case. If they could remove these artificial barriers between sites they could set about their work in a quite different way. Dr. Unwin, in his paper, has made suggestions of methods by which a rearrangement of boundaries and the pooling of areas might be brought about by common consent. In my opinion



it is along these lines that lies the secret of success in town planning.

Mr. T. ALWYN LLOYD [F.]: I was particularly pleased to hear Dr. Unwin lay emphasis on the need for vision, because it is in vision that most town planning is lacking. We meet people who say, "In spite of your town planning we still have ribbon development and various kinds of sporadic building; these things have not been prevented by town planning legislation." It is largely because there has been this lack of vision as regards design and in the scheme of things. With few exceptions town planning has consisted of road schemes and of very little else. The parkway seems to me to be the main solution of the ribbon development problem. Dr. Unwin has given us some admirable solutions of our problems to-night.

Mr. EWART G. CULPIN (Greater London Regional Planning Committee): We have not determined how, when the Greater London Regional Planning scheme is evolved, we shall carry it out. It is not even in the same category as the East and West Kent schemes, where, at any rate, you have one controlling authority in the County Council. In the London Regional scheme you have a vast area, in connection with which, as Dr. Unwin has shown, we have innumerable local authorities to deal with. The question is how, from a political point of view, we shall get them all of the same mind to carry out the scheme. It is mixed up with too many difficulties to put before this meeting on this occasion and at this hour, but sooner or later that will have to be faced. I know the difficulties and the differences which exist between the inner and the outer regions of this vast area; and how we shall reconcile the differences which arise it is difficult to see. The differences are only natural, but they will exist and jealousies will be continued until the whole problem is thoroughly explored and properly understood in its bearing both upon London itself and the remotest village. We shall not overcome troubles by ignoring them, and one of the best things which could happen for the Regional Committee would be for Dr. Unwin to give this lecture to the members to enable them to understand the problem as he has put it before us to-night. If that were done, I am as sure as I can be that the way would be cleared of many of the difficulties. It is because we can only meet together at best at casual times, when the agenda paper for the meetings is so full that we have been unable to face the problem properly.

I fear it is due to the lack of knowledge on the part of the members themselves that the scheme does not make better progress. The members are not to blame: the problem is so great and so many-sided that busy people cannot get down to every phase of it. I hope all of them will be able to read the paper which Dr. Unwin has prepared and has read to us to-night, and if accompanying the paper there could be given some of the illustrations which he has shown, it will make for real progress in this matter.

Mr. MONTAGU HARRIS (Secretary, Greater London Regional Planning Committee): Sometimes one hears people asking "What has the Greater London Regional Planning Committee done?" And some add,

"It has been in existence two years." Well, considering the vastness of the task with which it is faced, that question, I think, need hardly be asked. It, of course, takes a long time for such a body really to get to work. I am able to say, however, that the first Report of the Committee will be in the hands of the public in a few weeks; it has been settled by the Committee, and it is now only a matter of getting the printing and the publishing done. I hope every one here will soon procure a copy at the reasonable price of five shillings. In that Report you will be able to learn what the Committee has done up to the present.

Another question I might refer to is the name and scope of the Committee. It is asked, "Why 'Greater London'?" As Dr. Unwin explained, and as the Minister of Health has himself said, town planning has had to be extended to Regional planning. And Regional planning has been more and more extended in recent years throughout England. So the question arises, What is a region? In this case we did not delimit. We chose a region which had been marked out already by statute. If some people dislike the term "Greater London" as applied to the area, which is well outside the County of London, we had to find some convenient term for the purpose, and we have made use of it. If we consider what is obviously the first subject with which the Committee is concerned, the question of regional open spaces and green belts, it seems that the area is particularly appropriate, because, as you will learn from the Report of the Committee, this area seems to lend itself to the possibility of reserving green belts round London. I cannot go into that now, partly because the Report is not yet published and also I am limited this evening to time. But it is a point which is well worthy of consideration.

We come to the further point which has been referred to by Mr. Culpin, and that is the difficulty of getting a large number of authorities to agree upon any scheme whatever. It is in this case particularly difficult. Here we have 140 different authorities, one of them of so outstanding a size as London. To get all the small and the medium-sized authorities to agree on such a subject is very difficult. But it has to be done. We have within this larger region 14 to 20 sub-regional committees, each including a number of local authorities, but the County of London is not one of them; and in the nature of things it would not be possible for the County of London to be represented on 14 regional committees. It can be represented on one, and it is very important that it should be. That is this Committee, which is representative of the County of London and of such area around as is closely connected with it. I have been connected with other regional committees, and I have found that at the outset local authorities are jealous of one another, and, in particular, smaller authorities are nervous of the larger ones. When it came to working together on a scheme of this sort, however, they soon learn the value of co-operation. As far as my experience goes, there has never been difficulty with regard to the co-operation of the different local authorities on these regional committees throughout England, when once they have got started. I hope it will be so in the Greater London Committee. I think



it will; I think the smaller authorities are beginning to realise that there is no suggestion from any quarter that their statutory powers shall be taken from them. They must carry out their own town planning schemes, as before, but they have themselves realised that there are certain matters, such as these regional open spaces, with belts around London, which are too big for the smaller authorities to tackle.

Dr. Unwin has explained something of what the proposals are. When Mr. Culpin says he wishes Dr. Unwin could deliver these speeches to the members of the Regional Planning Committee itself, I think we may say he has done so. What I think even more desirable is that he should deliver the lecture to each of the authorities within the region, for whereas on the Committee all the members learn the facts and arguments with which it is concerned and those members may unanimously agree to a report, it does not follow that the members of each local authority will agree when they have not had the facts put before them in the same way. It remains for those representative persons to pass on the knowledge to their colleagues, and I hope that will be done.

This Regional Planning Committee is only an Advisory Committee; it is only a tentative concern. The Report must go before each one of these local authorities, and each one is asked to consider the recommendations and express their opinions on the proposals which are made, and it is to be hoped that they will consider these matters very carefully and fully and without prejudice. I think that if they will take the trouble to look into it from an unprejudiced point of view, there will emerge a unanimous opinion in favour of the proposals which you will find in the Committee's Report.

Mr. W. R. DAVIDGE [F.]: I think we should realise that each generation has had its job to do in this great town planning work. When people say it is a pity that London was not planned a hundred years ago, they are probably not conversant with the fact that London was being planned a hundred years ago in many directions; that the arterial roads which were laid down outside London a hundred years ago were proportioned consistently with the London of that day, and they compared very favourably with the 150 miles being done by the Ministry of Transport at the present day. Each generation has done its bit, and the Government of this country for the time being has always regarded London as a special duty for it to look after. The Government, down to the middle of the last century, always assisted in the public works of London, in the rebuilding of old London Bridge, the building of Westminster Bridge, the laying out of Regent Street, the laying out of New Oxford Street and Victoria Street, Westminster, the provision of Regent's Park, the provision of Battersea Park, the provision of Victoria Park: these were all done by the Government of the day. I want you specially to realise that the whole of these great improvements to which we owe so much in the past were the work of the Government of the country which felt its responsibility towards London. There are scores of other instances. Right up to the formation of the Metropolitan Board of Works the Government realised it was its duty to look after London. In 1855 it handed over to a body which was supposed to

represent London, the Metropolitan Board of Works, the doing of many things. They did wonderful things, but they were limited in their scope. They did some surgical operations inside London, but they had no thought for outer London. The London County Council has been following on the same lines, to some extent, as the Metropolitan Board of Works, and it has been even more limited, because in the last forty years of the Board's existence the values had grown so that it was almost prohibitive to do anything. If you look at the comparative increase you will find that the London County Council has done a great deal, but certainly not more than any previous generation has done. We have had Kingway and Aldwych, great things, and now we have Charing Cross Bridge, which in itself will cost more than all the improvements carried out by the Metropolitan Board of Works in 40 years. If you add the cost of the street improvements, including the Thames Embankments, this great Charing Cross Bridge will have cost as much as all of them put together. It is all-important that it should be done properly. It is only the first of many things that have to be done and it is all-important we should realise that this generation has so far done comparatively nothing, compared with the generations which have preceded it. Each generation has had its job, but we have a bigger job than any generation which has gone before has had. It is up to us to think of London not as a parish, but as a vast area on which we are dependent for our livelihood, and as a place in which we must spend our lives. We have to make the London of the future a place which is fit to live in, and we must not think of it parochially.

Mr. T. CHARLES, J.P. (Member of the Greater London Committee and Chairman of the Traffic Committee), thanked Dr. Unwin for his paper.

MAJOR H. C. CORLETTE [F.]: May I suggest that the subject we have heard discussed is not merely a London or a local matter. The questions that have been raised by our London experiences already affect, or soon will affect, every new city overseas. A new Capital City is being built at Canberra, where timely warnings might help the avoidance of some mistakes. In Sydney a great new bridge is being built. And already important city planning and traffic problems have arisen in relation with it that require solution. If any sort of liaison could be established between the work of the Advisory Committee on the planning of Greater London and those officially concerned with such matters in the Dominions some good purpose might be served. And in any case as this Royal Institute is a truly Imperial organisation I shall hope that at least a copy of this address may be sent, not alone to the members of the R.I.B.A. overseas, but also to official and educational bodies to whom it might be helpful.

The CHAIRMAN: Your remarks shall be considered, Major Corlette.

I now put the vote of thanks to the meeting.

It was carried by acclamation.

DR. RAYMOND UNWIN, in reply: What Mr. Ashbee said about aesthetics and history is important, and it should not be lost sight of. Sir Theodore Chambers, I think, touched a fundamental matter in the relation



between freedom for the individual and effectiveness of collective action. The individual's sphere can only be preserved by collective action; it is along those lines that I see the outline of a synthesis between the two.

Mr. Davidge has very ably reminded us that as London grows bigger it has a bigger bit to do. I am glad to have the advantage of Mr. Davidge's help, as well as that of Professor Adshaul, Mr. Hunt of the London County Council, and Mr. Thompson; all are giving us valuable assistance and advice, besides the invaluable help of Mr. Montagu Harris, our Secretary, and the Chairman and members of the Committee. All the members of the Committee recognise that in this job we cannot afford to neglect any help which can come to us. I hope we shall get help from many directions. We have to pull this big scheme through together, by helping one another, and by bringing our ideas into the pool. It is a big scheme; it is very difficult when you attempt to get any sort of conception of what is concerned in a scheme embracing 2,000 square miles of land. When you think of planning a few acres of land, then multiply that into square miles, and then multiply to get 2,000 square miles, with a population of nine millions, you will see it is a very complex problem, and for it we want all the help we can get.

The following contribution to the discussion has been received from Mr. GILBERT H. JENKINS (F.):—

I should like to draw attention to an aspect of Regional Planning which seems in danger—I will not say of being overlooked, but of being unduly subordinated, viz.: The needs of the countryside as opposed to those of the town.

Until recently these needs were unvoiced, but we have lately seen the establishment of the Council for the Preservation of Rural England, which is doing sterling work on certain lines. These appear to be (1) The saving of as many beauty spots from the activities of the speculative builder as is possible, by purchasing the land from private owners and vesting it in a public trust, or, in other words, converting it into a kind of public playground for the towns. (2) The preservation of as many of the beautiful old houses and cottages as can be achieved by similar means or by suggesting to the owners that their preservation and restoration is a sound financial proposition. (3) The prevention of disfigurement by advertisements or litter.

I had hoped that Mr. Guy Dawber, Professor Abercrombie, or someone more eloquent than I, would have come forward—not to decry town or regional planning—but to suggest that a redress of the balance between the needs of town and country is urgently needed. Otherwise, we are in grave danger of turning rural England either into a series of suburbs or of satellite dormitory and week-end residence towns, or of seaside, moorland, lakeland, or mountain pleasure resorts for town dwellers.

The point I wish to make is that the whole of the town and regional planning treats the development and planning of England entirely from the point of view of the townsman. The city or town and all its needs is the focal point. Here should be placed the shopping centres, there the factories and workshops, this is the best site for the better residential quarters, that for those of the working classes,

To make the town healthy so many acres of park or playgrounds are needed and to provide proper communications these great trunk roads and those bye-passes must be provided, while in the outskirts so much land must be left for the vegetable and milk supplies of the urban population. There is nothing in this philosophy which considers the needs and amenities of the rural population.

We, as architects, were the originators of town planning, and the great regional schemes are in our hands to make or mar. I would strongly urge that the time has come when a constructive policy for the preservation of rural England is as necessary as that for the orderly development of our industrial and commercial centres, and their dependencies, the residential districts. The gist of the problem seems to be the means whereby the gradual absorption of the whole of rural England by its towns is to be prevented. One way to prevent this would be to ensure that our towns shall be more compactly planned, but the whole present-day tendency of town planning is to spread the buildings out over a wider area.

In a recent town-planning scheme in a London suburb, it is laid down that in the shopping centre only one-half of the sites are to be covered, if the buildings are under thirty feet in height, and one-third if they exceed that height. When such a clause was drafted, the modern tendency to have lock-up shops of at least twenty feet clear frontage, and to avoid basements for storage, was overlooked. Such a shop with its storage, and staff rooms and two sets of lavatories, will be from sixty to one hundred feet deep, and eleven feet high in the clear. The staff no longer lives on the premises and the ground in the rear is only needed for garage and sheds for empty packing cases, which would normally cover most of the yard space. The cost of the land is approximately £1 per foot super, and it is neither desirable nor economically possible to give plots 200 feet deep for these shops.

To lower the cost of each shop, maisonettes or flats are placed on the upper floors, and to obtain these within the thirty feet prescribed for height the rooms have to be eight feet high or less, with a flat roof. If even nine feet is given to the living rooms, or a tiled roof is required, the sites under this regulation must be 300 feet deep, 200 feet of which is wasted yard space. The maisonettes or flats are only used as dormitories by town-dwellers, and there is no regulation that the plot within the back road shall be laid out as a garden for the common use of the shopkeepers or maisonette-dwellers, so that the scheme is bad both from a town planning and an economical point of view. In this scheme, houses are to be only four, six, eight, or twelve to the acre according to the district, and the whole effect is to spread this new suburb over much more of what was until recently an attractive piece of the home counties than it would occupy had not the town-planning scheme been adopted. This doubtless is greatly to the benefit of the townspeople, but it is quite time to consider whether it is to the benefit of England as a whole that London suburbs should be allowed to spread so widely over the countryside. Lately, the upper classes are giving up their large town houses and are going to live in flats, and the spread of this habit among townspeople of the middle and lower classes, particularly of our large cities, would retard the lateral spread.



In considering a regional plan for London, would it not be possible definitely to lay down areas where the erection of five or six floored blocks of flats should be planned in conjunction with the shopping centres, each block arranged around a square definitely allocated as a common garden, with avenues of trees on the sixty, eighty or hundred foot roads which are becoming the standard. Instead of twelve small separate houses for the working classes on an acre, there would be blocks of flats which would house over twenty families per acre with good gardens. This would secure some of the amenities of the country to the inhabitants without occupying so much of the open countryside.

In the next half century the leases of thousands of small suburban houses will fall in, and the regional plan should aim at the replanning of these areas on such lines, re-

housing the people on even less land than is now occupied, with fewer and more widely spaced roads and larger gardens held in common. Such a plan would go far to prevent the unnecessary spreading of London over further portions of the home counties to accommodate its increasing population. Doubtless Dr. Raymond Unwin has already many such schemes in his mind, and is hoping for a widening of the existing town-planning Acts to enable the authorities to solve this problem left us as a legacy by the short-sighted policy of the nineteenth century owners and builders. I would suggest, however, that it is time we defined some kind of schedule of height of buildings in relation to the areas occupied by the town or city so that it might be induced to spread upwards more rapidly than outwards, and that such a policy would go far towards what I am sure we all desire—the Preservation of Rural England.

## Metal Crafts in Architecture\*

BY GEORGE DRYSDALE [F.R.I.B.A.], DIRECTOR OF BIRMINGHAM SCHOOL OF ARCHITECTURE

Ever since the days when it was considered hardly necessary as part of his training for an architectural student to spend some time in the shops actually working on the various crafts used in building, it has been difficult for him to learn sufficient of the nature of their materials to be in a position to undertake their arrangement or design. Nowadays in the schools where an attempted explanation of the meaning of design is undertaken at the earliest moment, and when exercises are regularly set in its application, difficulty is found in getting the student to realise, as it were, the inner nature of the various materials involved, condemned as the schools are to work for the greater part on paper. There is a danger that while beauty of form, scale, proportion and composition may be better understood, in a general way, future work will lack that very necessary quality of sympathy with the material employed. Many of us have suffered from chips in the eye, from splinters, from bruised fingers, and have felt little the better from our early introduction to stone, wood, or metal as the case may be. Books such as the one under review will be found in consequence of great value to the student of architecture. *Metal Crafts in Architecture* is a volume arranged by an American, and dealing with the metals used in the crafts, one important omission, wrought iron, is reserved for a special volume. The method of the author is first of all to give a historical survey of the uses of a particular metal in the past, following this up with a fairly clear description of how it is worked at the moment. He then describes some of the common dangers and tricks both of the metal and the craftsmen, following this again with numerous illustrations. These, unfortunately, as is the case with so many modern publications of this kind, are almost all photographs, not very large in scale, and some of them

not too clear. A number of drawings and details to large scale would have very much enhanced the value of the book. It is surely such a very important thing to be familiar with the exact sizes of the ordinary parts, in the design of metal work especially. Following the arrangement of the book, bronze is given pride of place. Emphasis is very wisely placed on the very necessary refinement of detail required in this material, a refinement one so seldom sees. We are told that Messrs. McKim, Mead and White always had their plaster models coloured as bronze before approving them. Recipes are given for the various patinas required and insistence on the architect's specification of the "chasing" desired. The illustrations are mostly photographs of Italian and American doors. While noting the excellence of the American finish, the poverty of the motifs used compares very unfavourably with those of the Italians, even if the latter had the whole of the Bible ready for their use. Gilberti is safe in his usual quota of praise. Many of the earliest masters, unknown for the most part, speak for themselves in the photographs. We can also see how bronze can sympathise with plate glass, some of the American counter screens, window grilles, ticket booths, and Mr. Friedlander's fine traffic control tower show this. Brass follows a note taken of the many magnificent medieval brasses of this country. Here the necessity of a satisfactory amalgam of metals to obtain the best results as to colour is hardly insisted on, though we are warned of the need of constant cleaning when this material is to be used.

Cast iron follows, with the exception of Sussex fire backs, for so long the Cinderella of the craftworkers' metals in this country. A dislike started perhaps by Wren, and very much reinforced by the commercial providers of the past century, has prevented cast iron from ever coming into its own in England. The examples

\* *Metal Crafts in Architecture*. By G. K. Goettings. 40. New York. 1929. [Scribners.] 213 pp.



from the Southern States illustrated in this volume for the most part make this a fact not to be wondered at.

Messrs. McKim, Mead and White, however, have used cast iron in a most satisfactory manner, and since the War certain other American architects have produced very pleasant designs in this material. Coarser than bronze, bolder and heavier, when used sensibly no one can deny it has great qualities, while the necessity of its being preserved in paint adds further possibilities in its use as decoration. We are warned, however, to superintend very carefully the castings.

Copper with its qualities of thinness, self-colouration, malleability, etc., is followed by lead. Here again England gains a high place for the beauty of her rain water heads and her ciatern fronts, France claiming chief glory as a producer of beautiful lead vases. Lead is admired for its colour, for the fineness of detail possible in casting, and, of course, its permanency.

Zinc is not given much credit, while tin is mostly found useful in lighting fixtures and for decoration applied to lead.

Raymond Hood's building in Great Marlborough Street is instanced as an example of the possibilities of a modern use of enamels. Monel metal, copper on glass, steel and electro-plating complete the list. The final chapter deals with specifications and should be very useful, and the index is fairly complete.

Judged by this book, and remembering the French Exhibition of 1925, metal work generally seems to be progressing and healthy, though some of the special modernities such as the entrance in Park Avenue, New York, seem to me dreadfully ugly. Finally, it is pleasant to find Mr. B. J. Fletcher's lecture on "Right Making" freely quoted in the introduction, and to note good work by the Birmingham Guild in the illustrations.

## Reviews

COLLEGE ARCHITECTURE IN AMERICA AND ITS PART IN THE DEVELOPMENT OF THE CAMPUS. By Charles Z. Klander and Herbert C. Wing. Sm. 40. New York, 1929. [Scribner's Sons.] L. D.

This is a book on American "College Architecture." It is probably the first work on the subject. It is not a very big book, but the subject dealt with is a very large one. However, the authors have acted as pioneers in breaking up the ground and making matters easier for those who follow after.

The Institutions touched on vary from well-known universities, such as Yale and Harvard, to less outstanding places, such as Sweet Briar College, for which is shown a delightful little lay-out by Cram, Goodhue and Ferguson.

As the authors' space for explanatory letter-press is somewhat scanty, the considerable number of reflections on college life, of which the following is a sample, might have been omitted without reducing the value of the book:—

"The affection of the college man for his *alma mater* has at least one picture sufficing to command his devotion. It is the college scene. Now the college

scene is impossible to think of without its setting of architecture. What student sensibility is there unresponsive to the beautiful nave where the daily chapel was held, the stately portico where the class would group itself to be photographed, the window of the study where Caesar was coned under sheltering eave and overlooking roofs and chimneys? And many an old grad has reflected that students may come and go, classes enter and graduate, but that venerable walls and carved chimney-pieces, picturesque gables and vaulted archways endure for ever. These remain his own because always present in his mind's eye, and he prays that change and decay may never reach them."

In its historical survey the book goes back to the beginning of time as far as American college architecture is concerned; and we are given a view of William and Mary College, "designed by Christopher Wren and completed in 1697." There is, apparently, practically nothing left of Wren's original work.

Then, in the middle of the eighteenth century, came a great period of university building, when the three principal American universities—Harvard, Yale and Princeton—were begun.

In the chapter on "General Development Plans" there is an attractive photograph and lay-out plan of the Massachusetts Institute of Technology, designed by Welles Bosworth. Unfortunately, most of the plans are too small to be of much use for reference purposes, and no doubt the book is intended rather for the use of university authorities than as a guide for an architect seeking a solution to a problem in the planning of some educational building.

The conclusion one comes to after a study of this book is that the American undergraduate, man or woman, is treated much more like a child than is his British contemporary. Glance at the list of "Buildings for Student and Faculty Welfare." This includes not only hospitals, Y.M.C.A. and Y.W.C.A. buildings, clubs, athletic buildings and so forth, but also cafeterias, Alumnus rooms and other details, till one wonders if there is any hour in the day which these young people can really call their own.

It is possibly this early training in enforced companionship which makes the herd instinct so strong in Americans, more especially among the women, who seem to delight in travelling in crowds. This is what the authors say about university clubs:—

"The predominant character of the building should be homelike, for it is indeed a home for the student, and yet more. It is his club, and yet more; for it combines the comforts and conveniences of a club with those of a hotel. And yet it is more than a hotel, for all these comforts are merged in the pervasive atmosphere of the college of the student's choice, and he has as a member of the Union a direct personal interest in its activities. The Union building is the daily haunt where he and his friends meet, talk, eat, work and play. It has been said that 'the Union is the recognition of the importance of the leisure hour.'"

The American system of naming college buildings is interesting; what we call the colleges in a university



become "Dormitories," or, in the case of women's colleges, occasionally "Sorority houses," a swimming bath becomes a Natatorium, a speech hall an auditorium, and so on. Presumably also the theatrical word "audition" for "hearing" comes to us from across the Atlantic.

There does not seem to be any mention of a very valuable adjunct of some of the American universities—the Agricultural College—but, on the other hand, we get a view of the School of Commerce of the North Western University, a remarkable building which has rather the appearance of a large church mounted on a vast office block. There is also the Cathedral of Learning now under construction at Pittsburgh, shown in a perspective drawing with a tower rivaling the Woolworth building, New York. As to this tower, the author says:—

"In the lofty tower under erection at Pittsburgh . . . there are numerous practical and economic advantages combining with the aspiring outlines of the design. The college and university world should be grateful to the University of Pittsburgh for venturing such a bold experiment, the outcome of which will be awaited with considerable interest."

What these advantages may be, however, is not indicated.

The book is illustrated by a large number of excellent photographs of buildings from Virginia to Seattle; among them works by Cram, Goodhue and Ferguson; Cass Gilbert; McKim, Mead and White and other noted architects.

ARTHUR BARTLETT [F.].

EXPERIMENTAL BUILDING SCIENCE. VOL. 2: BEING AN INTRODUCTION TO MECHANICS AND ITS APPLICATION IN THE DESIGN AND ERECTION OF BUILDINGS. By J. L. Manson and P. E. Drury. 8vo. Camb. 1929. [Cambridge University Press]. 18s.

This is a valuable book for all who deal with building construction, the development of which is largely due to the use of steel and reinforced concrete, the scientific use of which depends on a sound knowledge of the principles of statics.

Dr. Stradling in his lecture on the work of the research station referred to the fact that much of the present building practice was based on what he described as folk-lore craftsmanship that had no scientific base, but was the result of centuries of trial and error. This book gives the application of scientific methods adopted in the new methods of construction and also their application to the older methods of building.

The book is divided into three sections.

Section 1 deals with the general principles governing the equilibrium of systems of forces, and with the application of these principles to the analysis of the forces acting in framed structures. The stability of the forms of scaffolding, hoisting apparatus and other large temporary structures used by the modern builder is utilised to form the basis of an elementary discussion on the stability of complete structures. The stability of cranes and forces in masts and derrick towers are dealt with in a very interesting and instructive way.

Section 2 is mainly devoted to the development of the ordinary theory of bending. In building up this important subject very careful attention has been given to the order in which the theory is developed. Thus, the forces acting in a loaded beam are first considered as separate forces apart from the strains and stresses set up in the material of the beam; fundamental relations are then established in a simple manner before the full theory is introduced. Similarly, the somewhat complex relations between the shear stress and bending stress in beams are dealt with immediately after an elementary consideration of complementary shear stresses.

Section 3 deals with the principles developed in the two preceding sections as applied to modern forms of building construction.

The principles of construction in steel and in reinforced concrete, and especially the theory of column design, have only been developed far enough to be of service to the young student, and to the general reader, but the treatment is such as to prepare the way for a more specialised study in any particular direction.

In order to show how the older methods of construction may be modified to conform with the new scientific methods of design, the subject of masonry and of timber construction have been dealt with.

The reader of the book is assumed to possess a knowledge of the elementary principles of mechanics. The treatment is very clear, and difficulties of a purely mathematical nature have been omitted where they add very little to the elucidation of the subject. In cases where the more advanced methods of mathematical reasoning may be used with advantage by readers who are familiar with them they have been included as alternative methods.

While graphic methods have been freely used throughout the book, the authors lean to the view that arithmetical and algebraic methods of solution should be utilised in the first attempts as experience shows a sounder knowledge of the principles involved can be obtained in this way.

H. D. SEARLES-WOOD [F.].

PHOTOGRAPHS AND DRAWINGS OF THE BANK OF JAPAN: *A Memorial of the Life work of Dr. Kingo Tatsuno*. 4to. [Tokyo.] 1929.

Among the more important recent presentations to the Library of the Institute is the portfolio of plates illustrating an outstanding work of the noted Japanese architect, the late Dr. Kingo Tatsuno.

This artistically produced and finely printed work has been acquired through the generosity of the Committee for the Commemoration of the Life Work of Dr. Tatsuno, and in particular by the action of the Chairman of that Committee, Baron Koi Furuichi.

The portfolio contains reproductions of a full series of beautifully executed drawings and photographs of the monumental Bank of Japan building in Tokyo, and includes 10 plates of drawings, six of them in colour, printed on very heavy white hand-made paper. There are 12 pages of letterpress printed on the same paper, and these, as well as the titles and descriptive notes on the plates, are in Japanese character only. There is no translation except on the title-page.



The design is simple and monumental. No traces of any Japanese or other Oriental motifs appear, the whole being consistently carried out in a strictly conventional Renaissance style. The only attempt at deviation from this rule is made in some of the plates showing interior decoration. Here the wall-surfaces are divided into panels in which purely Japanese subjects are painted in the typical Japanese manner. The combination of these panels with the somewhat heavy Renaissance detail employed in the surrounding mouldings and joinery, is not altogether happy, although interesting as an experiment. In other respects, however, the plates manifest the good taste, skill and patience of the architect, and it is not surprising that this building has been generally regarded as one of Dr. Tatsuno's most successful achievements, although it was completed in 1896 when he was still comparatively a young man.

The late Dr. Josiah Conder, F.R.I.B.A., was Professor of Architecture at this time in the Imperial College of Engineering in Tokyo, and Dr. Tatsuno was trained there and graduated in 1879. In 1880 he came to England with a Japanese Government Scholarship and entered the London office of William Burges. At the same time he studied in the Royal Academy Schools and attended lectures on Building Construction at University College. On the completion of his work as a student he made the "Grand Tour" before returning to Japan in 1883.

Some time later, when the Bank of Japan building was projected, he was retained as architect, and he then travelled extensively in Europe and America for the purpose of practical observation. It was as a result of this expedition that he was made an Honorary Corresponding Member of the Institute of American Architects. For a considerable period he was Professor of Architecture in the Tokyo Imperial University, occupying for a time the Deanship of its Engineering College. In 1902 he retired from educational work, and from that time devoted himself entirely to his practice. At this period he opened offices in Tokyo and Osaka and enjoyed a long and successful career. In 1919 he died at the age of sixty-five, leaving behind him many monuments to his greatness, of which the Bank of Japan in Tokyo is one of the most notable.

It will be seen from this brief record of his career and early training that Dr. Tatsuno was well fitted to be an exponent of Occidental architecture. He designed in the Renaissance style with a masterly ease and skill, and, whether or not we agree that this is the style best suited to the climatic and other special conditions of Japan, we must pay a tribute of admiration to the man, and marvel once more at a capacity and adaptability which is typical of his race.

ARNGED SILCOCK [F].

**MODERN DANISH ARCHITECTURE.** Edited by K. Fisker and F. R. Yerbury. 40. London: [Ernest Benn, Ltd.] £1 12s. 6d. net.

This publication by Messrs. Ernest Benn, Ltd., of *Modern Danish Architecture* of the past eighteen years is illustrated by an excellent series of photographs and

plans, edited by Kay Fisker and F. R. Yerbury. As the authors point out, Denmark has missed the worse architecture horrors, which may be seen elsewhere in Europe, and the photographs show the strong traditional feeling in the majority of the examples, which, with the exception of a few internal details, might have been erected one hundred years earlier.

The general impression on looking through the illustrations gives the effect of good and simple building. The one exception to the above criticism is Grundtvigs Church, Copenhagen, which is given on the cover of the book and forms the first set of illustrations. The church has a most striking façade in a modern Gothic style, designed by P. V. J. Klint; this building has already had some influence on contemporary architects in France. There is no doubt that such modern buildings on so imposing a scale stimulate the imagination of those who have an interest in architecture. The plan is on more orthodox lines than the façade, but unfortunately no photograph has been given of the interior.

The numerous plans given in the book have been carefully drawn, but a scale drawn on the plan would have given additional interest, and enabled the reader to visualise the size of the buildings.

The Police Headquarters in Copenhagen by H. Kampmann has an interesting plan on an island site, with fine axial planning on the lines of the French School, and in design might have been a pre-war building, with the possible exception of some of its internal detail. The conference room and corridor are modern in their details and the rather unique entrance to the Police Director's Office, a massive shell, which the rather frail doorway is supporting may be emblematic of the oyster and the methods adopted inside.

The remaining illustrations in the book show museums, schools and private houses, flats and commercial buildings, all of traditional character, which might almost be called timid in comparison with the more dramatic compositions of other modern European work.

Denmark, like England, is not an emotional country, and although it may be easier for the architect to design in the so-called Classic or Renaissance styles, whether we like it or not there is an unmistakable demand for new ideas that can only be satisfied with new forms and new thoughts in our architecture, and it must meet the conditions created by science and commerce, conditions that previous architects have not been called upon to meet.

C. LOVETT GILL [F].

**THE ARCHITECT.** By Clough Williams-Ellis (*Life and Work Series*). 12 mo. Lond., 1929. [Geoffrey Bles.] 5s.



This autobiography is the second of a series written by leading members of

"the professions in which men engage,

The Army, the Navy, the Church, and the Stage," in order to give an account of their various problems and experiences, which the publisher "hopes will be of interest to fellow-members, and of help to those who are about to choose or commence their life's work."

On its value for the second purpose the author disarms criticism in advance by admitting in the preface, what the book itself reveals, that he is "utterly and absurdly unrepresentative of the profession as a whole," so far as the normal method of becoming an architect is concerned: in fact, to the modern five-year-course academic educationalist he is almost as much of a stumbling-block as that brilliant scientist and Professor of Astronomy at Oxford who took up architecture as a side-show when he was about thirty, no doubt from his interest in the mechanical problems it offered, and rose to such heights of glory that his name alone would now occur to any average man in the street who was asked to mention a great English architect.

About half of the 190 pages are directly concerned with the practice of the profession, and the earlier part of the book follows, on a small scale, the conventional design of the full-dress autobiography, beginning with chapters on early years, school, and university, here labelled with more picturesque headings.

In the school period, we have an account of Sanderson, of Oundle, as he appeared to a generation of boys whose point of view was distinctly not that of the later eulogists who led to his final apotheosis as the model of all headmasters. The author's inborn instinct for architecture was already making itself felt, but found no scope at a school whose aim was mainly scientific; and at the next stage of his career he embarked on Natural Science at Trinity, Cambridge, but after one desultory year delivered a kind of family ultimatum which ended in the compromise of leaving Cambridge and taking up engineering, since architecture itself could not be visualised as an eligible profession, nor was there any obvious method of preparing for it.

It seems remarkable that in that year (1900 to 1901) such a view should still have prevailed. The A.A. School had then been running for some years, likewise the School of Architecture at Liverpool University, under Professor Simpson, but the author only discovered the gateway to the profession by the prosaic but practical scheme of looking up "Architecture" in the Telephone Directory, which led to an interview with Mr. Maule and enrolment as a student at the A.A., after a convenient vacation month in contact with an actual piece of building work in the country.

The reader might now suppose that Mr. Williams-Ellis was at length destined to follow the normal course of training which is briefly outlined at the beginning of the chapter headed "Practice." But fortune, still determined to keep him unrepresentative, had endowed him with that gift which is more precious to the embryo architect than rubies, or even alluring draughtsmanship, namely, a large and varied assortment of relatives and connections, willing to be helpful; so that hardly had his second term begun,

when he was confronted with an actual job, which he boldly undertook, severed his connection with the A.A., and started a diminutive office in the rooms of an older architect who provided friendly hints on practice.

With the formidable trials and obstacles of the "Honeywood File" fresh in our minds, we can only marvel at the luck with which this first building was carried through by an architect so inexperienced that he did not even know what a certificate was (did not Mr. Williams-Ellis then use the contract form of the R.I.B.A., in which the purpose of that document is described at some length?). But the fortunate beginning was followed at once by a "nice and rapidly growing trickle" of small houses, a translation to a larger office, and a fully-fledged and increasing practice, apparently without any of the usual voids and gaps, or the risks and disappointments of competitions.

In the course of these chapters some sound and well-balanced opinions are given on many problems which arise in modern practice, such as the treatment of clients, their functions and limitations, and the dangers of too accomplished draughtsmanship in misleading not only the public but the architect himself as to the real merits of a design. With his strictures on the system of the Architecture Room at the Royal Academy most of his colleagues would, in their heart of hearts, entirely agree, though they too may have bowed to the convention and sent in "posh-up" tricky pictures prepared for them by one of the favoured perspective artists of the moment. His own experience of results has shown its total lack of publicity value, merely from a business point of view.

The later part of the book contains two digressions, the first on the war interlude, which has the general historical value of all personal records of that period, the second entitled "Confessions," which might be appropriate enough in a press interview or an article in a weekly journal, but seems out of place in a book which is obviously intended to have some permanency as one of a series appearing at intervals during several years. It is a wise rule for any writer thus occupied to ask himself, "how will this paragraph, or this chapter, strike a reader ten or twenty years hence?" We can hardly suppose that a young architect, say, in 1945, will be greatly thrilled to learn that Mr. Williams-Ellis did not care to look at "acknowledged masterpieces of architecture" because their surroundings usually depressed him, did not appreciate painting in the form of easel pictures, had hardly any ear for music, was "coldly respectful to poetry," and only went to a theatre about once a quarter. In fact, the last four pages of this section, on the Epstein-Underground controversy, seem already slightly "dated."

Finally, there is an account of the origin and progress of Porthmeurion, that enchanted promontory on the Welsh coast, where a unique experiment has been tried in materialising an architect's dream of the ideal seaside colony of congenial people living under a strict but benevolent and enlightened autocracy. Here the author is again unrepresentative of the average architect, who could hardly hope for such an opportunity of controlling the design and setting of a group of his buildings, in the most beautiful surroundings.

On the other hand, the acceptable and discerning people who are deemed worthy of this paradise may be able to



call their souls their own, but cannot claim the same rights over their environment. They have no say in the external decoration of their homes, and may not make any internal alterations without permission: we wonder whether their pianos, dogs, plus-fours, and college blazers are also required to conform to the general colour-scheme. Worst indignity of all, their private gardens are planted and maintained by the Central Authority (as at Port Sunlight), so that even the position of their hydrangeas is decided over their heads—a state of servitude to which no true garden-lover would willingly submit!

Mr. Williams-Ellis writes throughout in an easy and conversational style which is pleasant to read and establishes a feeling of personal contact between writer and reader. The general impression given by the book is that (if the would-be architect could see a reasonable expectation of a career so interesting and enjoyable as that of the author, the profession would soon be congested by a crowd of enthusiastic aspirants.

RONALD P. JONES [F].

#### GREAT BUILDINGS AND HOW TO ENJOY THEM

SERIES.—Greek, Byzantine, Romanesque, Norman, Gothic Architecture. By Edith A. Brown, F.R.G.S. 5 vols., 19, 8vo. Lond. 19—, [Adam and Charles Black.] 5s. each.

This series was begun in 1907 when architectural books for ordinary readers were somewhat scarce. The latest volume is a second edition of that devoted to "Gothic," and it contains some authentic information as to the damage done to certain buildings during the War. We in England hardly realise the extent of the precautions taken by the French Government to protect some of their artistic treasures. Even so far away from the front as Chantres, the whole of the ancient glass in the cathedral was removed and stored. Similar precautions at the abbey of St. Denis were not wasted, for the modern stained glass which was allowed to remain was all destroyed in an explosion in March 1918.

This series of books makes little appeal to architects, but is written for those students who are interested in old buildings and desire a fuller understanding of their origins. Each volume contains about 40 pages of text and 48 full-page photographic illustrations. These are accompanied by notes not always carefully worded, e.g., the note on Tournai runs—"The cathedral was originally triapsal. The nave is one of the finest achievements of Romanesque builders. L. 480 ft." The reader might easily be led to think that Tournai no longer possessed spires at the ends of choir and transepts, but that it did possess the longest nave in Christendom. Of course, the dimension given applies to the entire length of the church.

The writer describes well the partial derivation of the Norman style from Lombardy, pointing out that Richard II, duke of Normandy from 996-1026, invited Lombard architects or craftsmen to come "and erect buildings," and that Lanfranc, a Lombard, became prior of Bec (Normandy) and archbishop of Canterbury.

F. H. M.

MODERN ARCHITECTURE. By Bruno Taut. 40. London, 1929. [The Studio.] £1 10s. net.

The *Studio*, which has always been keenly alive to the development of the arts abroad, has published a translation of Bruno Taut's book on Modern Architecture, which originally appeared in Germany. While there are many illustrations, this work does not consist merely of a collection of these strung together, but of an essay in eight chapters, each illustrated by appropriate subjects. Bruno Taut's thesis for the new aesthetic is:—"The aim of architecture is the creation of the perfect, and, therefore, also beautiful, efficiency."

J. M. E.

FACADES OF BUILDINGS, OLD AND MODERN, BUSINESS AND DWELLING HOUSES: Collected by Dr. Werner Hegemann. London. 40. 1929. [Ernest Benn.] £2 2s.

Dr. Hegemann, the editor of Wasmuth's Monatshefte für Baukunst, is well known in Germany as an acute and outspoken critic of architecture ancient as well as modern. In this volume he has collected some five hundred examples ranging in date from ancient Greece to the present day and in geographical location from Medina to California. These are preceded by an essay in which the author lays particular stress on the qualities which make for satisfactory streets and severely criticises many individually interesting buildings for their lack of these qualities. It is interesting to note, from a foreign observer, a warm commendation of the new Regent Street, particularly the Quadrant.

J. M. E.

WROUGHT IRON IN ARCHITECTURE. By Gerold K. Gerding. Charles Scribner's Sons, 1929. (12 in. by 9 in., pp. xi + 202; 324 illustrations.)

This is a very valuable book, one of the soundest books of its type that could be produced. The author is not only an enthusiast—he has probed deep into the mysteries of the noble craft of wrought ironwork. There is a substantial letterpress, a little "racy" in parts, but with power behind it. The illustrations are wholly admirable, not least the outline "working" drawings done (we understand) by the author's wife. There is much architecture in the book, apart from ironwork. As a finely illustrated catalogue of the best in Europe and America, it is invaluable, apart from its exceedingly practical qualities. It should be acquired by every architect and every school of architecture. American scholarship has indeed to be congratulated on this production which is dedicated to the School of Architecture at Pennsylvania University.

It is gratifying to read: "It must be granted to the credit of English ironwork that it maintained a higher general average and national individuality from the eleventh to the nineteenth century than did that of perhaps any other country." This is a recognition of its value both in mediæval and renaissance times. It is therefore a little regrettable that the fine return to simple craft methods initiated by Philip Webb gets no place, the more so because several full pages of illustration are devoted to modern American work, some of it, perhaps, a little questionable in treatment. However, one must not quarrel with the book on this account. The Spanish section borrows some of the fine illustrations from Mr. Prentice's book.

D. T. F.



# Correspondence

## REGIONAL PLANNING.

44 *Calgarth Mansions, W.14.*

12 January 1930.

To the Editor, JOURNAL, R.I.B.A.—

Sir,—Being unable to join in the discussion on Mr. Unwin's paper on Monday last, may I take the opportunity to enlarge upon his remark that he hoped the general height of London's buildings would not be raised, a sentiment which was widely applauded by the meeting.

It surprises me that one who has contributed so much to the science of town-planning should allow an important sphere of his work to be vitiated by a sentiment. Such ideas were, perhaps, laudable when buildings were of brick or stone only, and it was unsafe and uneconomic to build much above 80 feet, but they are now the detritus of an obsolescent building system.

I do not suggest that the legal limit be raised, but that it should be made to perform useful work.

For example, a large block of building is proposed on a main thoroughfare. The building owners would probably be quite willing to set back, say, 20 feet along their main frontage if allowed to raise to 150 feet over three-quarter of the site and to 200 feet over half the site. Street widening would result and the angle of street lightening not be greatly affected.

Another instance: Amid the desolation of South London, residential areas between the main roads could be zoned, with an allowed height of, say, 40 feet for residences. Building owners would be permitted to raise their blocks of flats (the inevitable future of such areas) to ten or twelve stories on condition of forming surrounding open spaces.

Thus could building land be fully utilised, open spaces created, streets widened, car parks formed, all, be it noted, without the local authority having to find the vast sums for compensation which are at present the great deterrent to the replanning of built-up areas; and, incidentally, stay the too rapid declension of the countryside into a mere expanse of speculative housing.—I am, sir, yours faithfully,

G. NORBURN (J.).

Dr. Unwin writes as follows in reply to Mr. Norburn:

In reply to Mr. Norburn: The objection to high buildings is not based on sentiment nor is it part of the detritus of an obsolete building system. It is based on the painful experience of those who have used the new building construction to test this method of avoiding the consequences of overcrowding, who are most emphatic in cautioning London against making a similar mistake.

The simple fact is that traffic congestion in streets is directly due to the intensity of occupancy or the volume of building adjacent, and but little relief comes from widening. If a high building is erected, which will be occupied by anything from one to ten thousand persons, no setback of the frontage which could be required would mitigate the traffic strain thus thrown on the street which would not be confined to the building frontage but would affect half a mile of road or more. By the time the whole street became similarly widened the traffic strain along the frontage would have far surpassed the very limited relief which even a long widening will affect.

New York, with frequent main streets 100 feet wide and still more frequent cross streets 64 feet wide, is quite unable to cope with the traffic in its still relatively small areas of skyscrapers.

Let those who wish for higher buildings in London estimate the extent of building area which must be sacrificed to widen London's streets to something like the New York standard; let them add to this the cost of carrying out such widening; let them, then, throw into the scale the disadvantage in this climate of increasing the area shaded from the sun by every building to an extent many times that of the increased height of the building; even if all the claimed advantages of high buildings—to say nothing of the few real ones—were piled into the other scale it would show but a light counterweight. I am convinced that for every pound we spent in raising the height of our buildings in Central London we shall have to spend many pounds to solve the problems of increased congestion that are thereby being created.

The question whether, with a given density of reasonable amount, a higher building and more open space, or a lower one and less space, would be the better, depends on individual circumstances, and is an entirely different one. Experience shows that, owing to the tendency for high buildings to foster high local land values, the higher the buildings the smaller is the amount of open ground which can be secured.

R. UNWIN (R.).

## The Library

NOTES BY MEMBERS OF THE LITERATURE COMMITTEE ON RECENT PURCHASES

[These Notes are published without prejudice to a further and more detailed criticism.]

MOBILIER ET DÉCORATION: REVUE MENSUELLE. Selection tirée de l'année 1928. 40. Série. [1929.] 301.

When the copies of a journal on Architecture or Decoration are bound into annual volumes, the result is usually cumbersome, and there are many pages of purely topical interest. In this volume, however, the most valuable and most generally interesting articles only are bound into a volume, which thus gives an admirable series of large illustrations of interesting recent work in France. There is not much architecture beyond a few illustrations taken in the Rue Mallet Stevens; there is an excellent chapter on the iron work of Raymond Sabes. The rest of the volume is taken up with beautifully carried out schemes of interior decoration and furniture. Of course in this modern work colour and texture are so important that illustrations can only half illustrate: one must go to Paris and the Exhibitions of Decorative Art. This book at least shows the comfort, practicality and simple richness of the new manner.

H. C. H.

THE OLD HOMES OF BRITAIN: THE SOUTHERN COUNTIES. Edited by Christopher Harey. Sm. 40. Lond. 1928. [Country Life.] 51.

This is an ingenious form of guide book to the principal old houses in Kent, Sussex, Hampshire and Middlesex. Between fifty and sixty houses have been chosen. These are each illustrated by one or more good photographs. There is a map showing where each house may be found, and a topographical list arranged under localities giving the names of the chosen houses in that locality, the days on which they are open to the public and a list of other places of interest in the neighbourhood.

A. H. M.



# Sir Lawrence Weaver, K.B.E., F.S.A., Hon. Associate R.I.B.A.

*Magister Cereemoniarum.*

BY PROFESSOR A. E. RICHARDSON, F.S.A. [F.]

To Sir Lawrence Weaver, who died on 11 January, at the age of 53, is due the homage of the architectural profession. He was an example of energy combined with indomitable will power. His loss to the cause of architecture cannot be estimated, neither can his championship be replaced. Weaver had the rare gift of reconciling contrary opinions. He was a born leader, and he picked his followers for their ability. His career, alas, all too short, embraced so many pursuits that it is difficult to say in which he most excelled. As an antiquary, a writer, and a man of taste he gained respect; but it was as an organiser that he figured to the fullest advantage. Throughout his busy life he viewed pleasurable work as the only possible form of recreation. This was his secret; and part of the process was to help young men to fame.

Weaver was born at Clifton, Bristol, and was educated at Clifton College. His early life, after leaving school, was spent first in training as an architect, and later he became associated with various manufacturing firms. It must be remembered, however, that he lost nothing by the latter experiences. Quick to observe and retain impressions, he had the eyes to distinguish between good and indifferent work. It is not surprising therefore that he set out to improve craftsmanship and to interest patrons. All the time, perhaps unknowingly, he was preparing for the wider issues of organisation. It was not until 1910 that Weaver became architectural editor of *Country Life*. For six years he directed the policy of the paper towards better taste in building. Under the heading of "Lesser Houses" he described the chief domestic work of that type carried out in this country. In his spare time he wrote books on architecture and kindred subjects, besides reading numerous papers before learned bodies.

On one occasion he was lecturing at the Society of Antiquaries; the subject concerned Wren's building accounts of St. Paul's Cathedral. Weaver held his listeners and was clearly master of his facts. Those who recall that meeting will remember the merriment when the farthings stated in the accounts were mentioned. Before serving in the Anti-Aircraft Corps of the R.N.V.R., Weaver had helped to form the Civic Arts Association for he, with others, realised quite early in the war that the public would need advice on the design of war memorials. For a time Weaver disappeared from the circles he had so long advised. His subsequent discovery by Lord Lee of Fareham, in the uniform of an able-bodied seaman at the White City, led to his being seconded to the Food Production Department. Finally, in 1918, Weaver became Commercial Secretary to the Board of Agriculture. It is not surprising that a man of his talents should have made his new duties a passion. Architecture now became Agriculture with a capital A. He had acquired a remarkable grip of the subject, and he quoted from the writings of Arthur Young and Cobbett. The time appeared ripe to expose the obsolete Cobdenism which had long since destroyed the ancient and staple industry of England. From 1919 until 1922, he became

Director-General of Land Department and Second Secretary in the Ministry of Agriculture. His schemes were far-reaching, and were enthusiastically received by his colleagues; in his mind, there was no obstacle that could not be overcome. But, alas, circumstances changed; and the subject of agriculture was relegated to the inevitable pigeon hole. Most people by this time were prepared for the insuperable to be achieved by Weaver, and it was no surprise when he became Director of the United Kingdom Exhibits, including the Palace of Arts, at Wembley in 1922. When the Exhibition was opened, the critics began their attacks. Some did not care for the architecture, others complained that they had not been invited to design a pavilion, etc., etc. Few realised the administrative power that helped to make the exhibition the unqualified success it proved to be. The facts all hidden were that Weaver had ruled a horde of busy bodies with no light hand. He had quelled the vulgar, he had improved and unified the majority of the private stands, and he had inspired new ideas for subdued advertising. Not only did he convene innumerable committees, but he acted as Chairman more often than not. The wonder is that he stood the strain. The exhibition at Wembley had the beneficial effect of opening the eyes of architects and the general public to the value of simplicity in the design of buildings. Weaver now headed the campaign against copyism and reproduction, but he did not lose his head as so many did. He remained fortunately an admirer of historical works, and he sought to inspire regard for intelligent evolution in art rather than wild adventure. The term "Modernism" to him meant little. He knew only too well that the technical papers would fall for the "Continental" fashion, and that once the "stunt" had run its course, there would be a frenzied retracing of uncharted ways. At this juncture, the forming of the Architecture Club was an affair after Weaver's heart. The new club was to be exclusive, "its aims to enlarge public appreciation of good architecture and the allied arts, and especially of the best work of to-day." In due course, on the retirement of J. C. Squire, Weaver became President, indeed the choice of the members could not have been better, for here it was thought was a leader who combined literary skill with architectural experience.

To enumerate all the activities of Lawrence Weaver calls for the skill of a cataloguer. To be brief, he was a maker of careers, a patron of craftsmen, a benefactor of the needy and the afflicted. The list is indefinite, for, apart from his position as Honorary Treasurer of the Housing Association for Officers' Families, he practically ran "Ashted Pottery," a society for the training and employment of disabled ex-Service men, and he helped many private individuals to whom poverty was a nightmare.

Weaver did all this, and more, in a light-hearted, care-free spirit; he smoothed over troubles, and he gave his friends the impression that he had the physique of a giant.



It has been said of Weaver that he possessed the Open Sesame for all difficulties. His was the view that saw the way round, his was the ever-youthful enthusiasm that accepted the discourtesy of the times and yet held to an ideal. It is written that no man is indispensable, but here was a leader who placed leadership above ordinary advantage, and one who viewed worldly success as a disaster.

## THE LATE KEITH DOWNS YOUNG.

By WILLIAM A. PITT [F].

The death of Mr. Keith D. Young in his 82nd year has removed from our profession a well-known personality in the hospital world. Possessed of an undimmed outlook, he was a keen worker until within a few days of his brief and final illness. Educated at Tonbridge School and the National Art Training School, South Kensington, now the Royal College of Art, Mr. Young entered the office of his father, George Adam Young, also an architect. From an early point in his career, he was much and profitably interested in the detailed matters of construction and hygiene, and usefully exercised his literary gifts in various writings. He contributed with Percival Gordon Smith [F.] to Shirley Murphy's work, *Our Homes and How to make them Healthy*, Mr. Young being responsible for the architectural part of a long essay, besides occasional articles in the *Practitioner* and other periodicals, and papers on hospital topics at the Institute and the Architectural Association.

There is a long catalogue of Mr. Young's hospital works, about sixty in number, and, with many others beside, he was engaged in a consultative capacity. Among his earlier hospital undertakings may be mentioned the small Miller Memorial Hospital, Greenwich, the first instance in England of the use of circular wards, this being as far back as 1883; and which, with a large Ward block, built in 1911, formed the commencement of a large scheme of reconstruction now in progress. For many years from 1886, Mr. Young was closely associated with the Middlesex Hospital, in extensions and modification, now culminating in the great rebuilding scheme proceeding under the direction of Mr. Alner Hall, the son of his former partner. Among his many other works, too numerous to detail, mention should be made of the Great Northern Hospital, and the Royal Eye Hospital, Southwark, a building containing a number of unusual features in which Mr. Young was closely associated with the well-known surgeon, Mr. Malcolm M. McHardy, F.R.C.S., with whom he was on terms of intimate friendship and collaboration. Another building of special character is the Royal Dental Hospital, Leicester Square, which was the result of a limited competition in 1898. In the same year he carried out the Sir George Johnston Eye Theatre of the old King's College Hospital, Lincoln's Inn Fields, while acting as Consulting Architect; the Evelina Hospital, the Bellingbroke, and the Chelsea Hospital for Women, and his latest, the extension of the Ear and Throat Hospital, Grays Inn Road, are specimens of a wide and extensive experience. Mr. Young also acted as adviser to the Express Dairy Company for many years.

One of Mr. Young's most recent works should not be passed without notice, this being the completion of the second section of the Hospital for Mothers and Babies, Woolwich. This is a unique institution, due to its character for particular service, and was opened a few days after his death by H.R.H. Princess Mary.

Mr. Young acted as assessor in a number of hospital competitions, including that of the Bradford Royal Infirmary, in 1911, the selected design of which is not now being carried out. Throughout his long professional career, Mr. Young was a diligent worker right down till within a week of his decease. He was a facile and enthusiastic sketcher, not only of architectural subjects, but of natural objects, trees in particular, and had experience as an etcher. His interests, however, were not confined by these pursuits, for he was a wide reader, and had travelled in the Near East, and possessed an attractive library of about 1,500 books, every one of which had been either purchased or presented; reading occupied his evening leisure, and his taste lay in history essays, architecture, and the history of religion—it is said of him that "few men knew the Bible more intimately than he."

Mr. Young was of a retiring nature, and was not often seen at the meetings of the Institute, but his keen interest in matters of professional interest was sincere.

As a friend, his cheery outlook was inspiring, and none sought his counsel in vain. Possessed of a critical instinct, he was strong in his likes and dislikes, and seldom failed to give definite expression to his views with unmistakable vivacity. His passing from us leaves a gap and marks an era of advance in hospital design, upon which his influence is unmistakable in the remarkable progress made in hospital planning in this country.

Mr. Young was associated for many years with the late Sir Henry C. Burdett, K.C.B., the well-known hospital authority, and was responsible for much of the useful matter which appeared from time to time in the *Hospital*; the plans of buildings illustrated in that journal being made to a uniform scale were prepared under his direction. He further wrote, year by year, the chapter on current hospital construction in *Burdett's Hospitals and Charities*. In this connection, it may be stated that Mr. Young was responsible for the volume on hospital planning and construction in *Burdett's Hospitals and Asylums of the World*. His other literary productions were contributions in the *Practitioner*, and various papers on hospitals read before societies, and quite recently he had been actively engaged in extensive researches in relation to the planning of the sanatoria of public schools.

Mr. Young commenced practice in 1871, and was elected an Associate in 1875, and at the time of his death was one of the five senior members of the Royal Institute. He was also a *Membre Associé Étranger* de la *Société Française d'Hygiène*.

This notice would not be complete without reference to his long and close association with his partner, the late Henry Hall [F.], which extended over thirty years, and though generally being individually engaged, the name of the firm of "Young and Hall" was widely known and esteemed.

In conclusion, the writer of these inadequate lines would pay a grateful tribute to the memory of a generous and genial friend, at all times ready to counsel and encourage, and to one of so noble a character as not to be above seeking similar counsel from a junior.

It is with great regret that we learn on going to press of the sudden death of the Rt. Hon. Viscount Esher, G.C.B., G.C.V.O., Honorary Fellow R.I.B.A. on 22nd January.—Ed.



## Charing Cross Bridge

Summary of Proceedings at Ministry of Transport, on 23 December 1929

Agreed Summary of the proceedings which took place at the Ministry of Transport on Monday, the 23 December, 1929, when the Minister and Sir Percy Simmons, Chairman of the Improvements Committee of the London County Council, received a deputation representing the Royal Institute of British Architects and the Thames Bridges Conference.

Mr. STANLEY HALL, the Vice-President of the R.I.B.A., in introducing the deputation in the unavoidable absence abroad of the President, Sir Banister F. Fletcher, stated that the architects had been concerned about the proposals for a bridge at Charing Cross as long ago as 1915.

He pointed out that subsequent to the publication of Lord Lee's Report, when a Committee of Engineers was appointed to report on this subject, the Institute asked for the appointment of an architect on the Committee. This was refused on the ground that at that stage scientific engineering considerations were the only issue. In the view of the Institute this was a most unfortunate decision, as they felt that an architect should have been engaged from the inception of the proposals, and that though an architect had subsequently been called in it was not fair to any architect to be called in and told that fundamentals, from an engineering and traffic point of view, had been settled.

They considered that on the Surrey side there was an opportunity for the improvement of London and the Thames greater than had occurred since the Fire of London, and that the promoters, in their anxiety to arrive at some finality, had produced a half-baked scheme, having allowed the supposed difficulties to loom too large. They, therefore, asked that the Bill should be referred back for further consideration.

Mr. ARTHUR KEEN, the Chairman of the Thames Bridges Conference, stated that the Conference had looked at this scheme from the point of view of town planning and economy, and they did not consider that proper provision was made for the development of London on the southern side, which was a most vital question. He pointed out that all the successive official schemes had been frankly viaducts and that viaducts were not wanted in Central London. They sterilised the areas that they touched. He also criticised (1) the fact that there was no connection from the bridge to the Embankment on the Middlesex side; (2) the proposal to cover in York Road for a distance of 350 feet; and suggested the desirability of all works being on the ground level, or as near thereto as possible, and open to the sky; and (3) that no building sites were formed between the railway and the road.

He also considered that to meet the wishes of the railway company the station was brought much too near the river on the Surrey side and that in the position proposed it would prevent adequate development of the river front and the area behind it. He added that the members of the Deputation did not advocate any particular scheme.

Sir REGINALD BLOMFIELD, R.A., representing the Royal Academy, criticised the scheme under the heads "Cost, Traffic, Architecture and the Surrey side."

He did not think that if the scheme were given effect to the public would be getting value for a cost which was placed at nearly £15,000,000, much of it compensation for buildings destroyed in consequence of the route selected.

With regard to traffic, he drew attention to the closing of roads on the Middlesex side, such as Villiers Street and Buckingham Street, and he did not consider that the approaches on the Surrey side were adequate. The archway proposed at the end of the bridge on the Surrey side would cause congestion of traffic and block a vista from the Strand right across the bridge and to the country beyond. He thought that tunnels

on the Surrey side 350 feet in length would be unsightly, noisy, difficult to ventilate, and very dangerous owing to the risk of carbon monoxide poisoning from the exhausts of motor vehicles in the tunnels. Owing to the levels the tunnels through which York Road and Waterloo Road would have to pass, could not have a greater height than that from the Embankment roadway to the underside of the railway passing over it on the Middlesex side though they would be more than three times as long. In his opinion these tunnels were a fatal objection to the official scheme. He criticised the circus for a roundabout on the Surrey side, which he thought was badly designed. The result would be that there would be heavy congestion at this point. From an architectural point of view he expressed the view that the scheme on the Middlesex side had been prepared without regard to architectural possibilities. In particular, the tunnel ramp on a steep gradient and the areas left for building would render it impossible to get a satisfactory architectural treatment. Similarly, he thought that the 1,600 feet of wall formed by the side of the new station along the elevated road would prevent any satisfactory architectural feature there, and, as in the case of the Middlesex side, he thought that the areas assigned for building in the neighbourhood of the circus on the Surrey side would be impossible to deal with.

Generally, he thought that the proposed arrangements on the south side would completely block in the southern area with a solid wedge resulting in there being a hinterland of slums in perpetuity.

Lord CRAWFORD, the President of the London Society, stated in dealing with the town-planning aspect of the scheme that in his view the whole problem should be considered in relation to London as a whole and not only as dealing with a railway problem, and took exception to what he regarded as an arterial road being made before planning the area to be served, and he asked that the scheme should be tested by broad principles and truths. Firstly, the layout should consider development as well as traffic, as the area involved is in the central and most important part of London. Secondly, good sites are wanted on both banks. The scheme is defective in this respect. Those on the north side are meagre and shallow. On the south side they are irregular triangles and wedges. Thirdly, viaducts, tunnels and vaults are undesirable. Acres and acres of vaults are created, thereby destroying values, instead of creating them, and the scheme would prevent the development of the Surrey side. Fourthly, bridge traffic should be divided, and dispersed as soon as possible, and congestion in the Strand would be serious. Fifthly, shore-to-shore connection is desirable. Lord Crawford pointed out that through there being no access to the bridge from the Embankment a vehicle desiring to go from the Hotel Metropole on to the bridge would have to go all round by the Strand, some 1,200 yards, before beginning to cross the river. Sixthly, there should be easier road gradients. Some of the gradients on the Surrey side were as steep as 1 in 30, and artificial hills should not be made. Seventhly, easy access to and from stations. The proposed arrangements in this respect would cause inconvenience to the companies' passengers, further the termini will be hemmed inside a triangle, expansion being impossible.

In conclusion, Lord Crawford stated that a replanning of the scheme to provide some satisfactory sites for rebuilding would, in addition to improving the appearance, reduce the cost by additional recoupment values.

Sir PERCY SIMMONS, on behalf of the London County Council, described the recent history of the proposals for the removal of the existing railway bridge and the construction of a road bridge. He said he was quite satisfied that every



scheme which had been suggested during the last 30 years for dealing with this problem had been most carefully examined before the present proposals were settled. Many of the schemes were hopeless, from the traffic point of view, and traffic was the primary consideration. His Council were satisfied, as was the Ministry of Transport, that the scheme does deal more effectively and better with the traffic than any other scheme, providing as it does, among other things, excellent facilities for linking up with the tubes.

Dealing with Sir Reginald Blomfield's points on the subject of cost, Sir Percy Simmons did not see how any less expensive scheme could be devised which would be satisfactory.

With regard to Sir Reginald's complaint that, from the architectural point of view, there would not be much of a vista, he did not understand how Sir Reginald could obtain the vista he desired and at the same time cope with the traffic difficulties.

With regard to the Surrey side there would, he hoped, be a beautiful embankment garden. From the traffic point of view the scheme must be considered in relation to the traffic difficulties now existing at the Elephant and Castle and Vauxhall Cross. The scheme would now present these matters being dealt with, and proposals for improving the present conditions at these points were actively under consideration, and there would be nothing to prevent further improvements on the Surrey side. Consideration was now being given to the question of the improvement of the traffic facilities north of the Nurse Cavell Statue. He pointed out that Sir Edwin Lutyens had been consulted, and had signed the plan showing the layout, and in its preparation he had a free hand within the limits dictated by engineering and traffic requirements. He added that within the limits above referred to they would welcome any suggestions, which would receive every consideration. He pointed out that the Council intended to go forward with the Bill and that, in his opinion, it was the only chance this generation would have of getting a Charing Cross Bridge.

With regard to the design of the bridge and the viaducts, the Council will no doubt desire that these should be put out to open competition.

THE MINISTER OF TRANSPORT, in reply, stated that he could not undertake on behalf of the Government to ask the London County Council to withdraw the Bill and start *more or less de novo*, and prepare a fresh scheme at this stage. Some amendments might be made as the Bill proceeded, but as the Ministry had been in the closest association with the Council it would be a very serious matter for him now to suggest that the scheme was fundamentally wrong and should be withdrawn. Indeed, he thought it would be dangerous to do so from the point of view of those who wanted a bridge at Charing Cross.

As he viewed the matter it was divided into four parts: traffic, engineering, valuation and architecture, and the best advice had been obtained under each of these heads.

On the traffic aspects, apart from his own personal knowledge of the problem, it would be difficult for him to set aside the traffic advice which had been received from Sir Henry Maybury and other experts who, since the London Traffic Act was passed, had made a very close study of the traffic problem, had collected most valuable material and had acquired a scientific knowledge of the movement of London Traffic. Further, he had had the advantage of the advice of the London Traffic Advisory Committee, who generally concurred in the scheme. Nor could he ignore the opinions and advice of the railway company upon traffic matters, for their interests, and those of their passengers, were seriously affected.

With regard to the proposal that the bridge should be connected directly with the Embankment, if this were done much of the traffic crossing the bridge from the Surrey side and going north would proceed up Northumberland Avenue into Trafalgar Square. Traffic in Northumberland Avenue in this direction had increased by approximately 25 per cent. in the last four years. It now amounted in the peak hours to over

1,000 vehicles per hour, was still growing, and likely to do so. Further, Trafalgar Square to which Northumberland Avenue leads, already handles daily in 12 hours nearly 60,000 vehicles, and this traffic also continues to increase.

The Embankment also already carries much fast traffic, which is increasing, and in addition there is an intensive tramway service which, in his opinion, is a most valuable asset in London travelling facilities. Accordingly to bring the traffic from the bridge, on to the Embankment in these circumstances would, in his opinion, invite a very difficult traffic position. It was for these reasons that the layout on the north side of the river had been decided upon, so as to avoid the difficulties which would otherwise arise at the Embankment, in Northumberland Avenue, and Trafalgar Square.

With regard to the site of the proposed new station it was true that the original intention was that it should be set back further from the River than was now proposed. The railway company objected, as they were entitled to do in their own interests and those of their passengers. They suggested that if the present station were to be moved at all, it should be to the site now proposed, and upon a close examination of this proposal the advisers of the Council and the Ministry came to the conclusion that it was a better scheme, as it would provide far greater facilities for passengers to reach the London tube system.

Mr. Morrison further pointed out that the level determined for the railway must control the level of the bridge, and the height at which it must go. This feature involved the viaducts and the so-called tunnels, which are not tunnels in the sense of burrowing, but will merely be roads roofed in to carry the station. He was unable to accept the view that such so-called tunnels need by any means be unsightly.

On the engineering side he was satisfied that the best advice procurable had been obtained and, with regard to the valuation aspect of the matter, full advantage had been taken of the advice of the Government Valuer and the Council's Valuer, Mr. Frank Hunt.

As to the architectural features Sir Edwin Lutyens had been consulted, and the deputation was in error in having asserted that he had not signed the plan of the proposed layout. He did not desire to suggest that Sir Edwin was responsible for the whole scheme, and he would not be prepared to agree that any architect, or body of architects, should deal with important traffic and engineering matters. All three groups of experts must have their say in evolving the best scheme. This had been done and subject to what were considered to be traffic and engineering essentials, Sir Edwin had had a free hand.

Mr. Morrison concluded by saying that he could not ask the Council to reconsider the Bill, and he wanted to make it quite clear that in this matter the Ministry of Transport, both under the last Government and under this Government, had worked hand in hand with the London County Council, and has been consulted at every stage, and had arrived at the conclusion that the scheme proposed was the best practicable one in the circumstances. At the same time he welcomed the criticisms of those important bodies whose interests the deputation represented, and he could assure them that within the limits of the present proposals he personally, and the County Council, would welcome any suggestions for the best possible architectural treatment of a scheme which he was sure would offer great architectural opportunities.

#### ST. PAUL'S CATHEDRAL PRESERVATION.

A meeting of the Representative Committee of St. Paul's Cathedral was held on 4 December 1929, when the following Report by the Works Committee was adopted:

**EIGHTH REPORT BY THE WORKS COMMITTEE OF THE REPRESENTATIVE COMMITTEE.**

The work of preservation at St. Paul's Cathedral has main-



tained a steady rate of progress in the period that has elapsed since the last Report dated 14 February 1929 and there is no reason to doubt that the work will be so far advanced that the Cathedral will be ready for re-opening by June next year and for the continuation of the regular Services thereafter.

The repairing of the ashlar facing of the main piers has made considerable progress. Work on the Choir piers is nearing completion and on the other piers has advanced to the level of the main cornice where extensive renovation has been carried out. Good progress has been made with the renewal of defective carving. Nearly 700 corroded iron cramps in the masonry, which have caused so much damage, as explained in the last Report, have been removed. Forty of these were found embedded in the main Corinthian capitals and eighty-eight in the main cornice. These projecting features were urgently in need of repair and were becoming a source of danger. It is satisfactory to report that the removal of the cramps has been carried out without causing local movement of any importance. About 2,000 rusting cramps have been inserted.

The organ and its casing have been removed from the temporary position in the nave and are in process of re-erection on the original site. Much of the main structure is up but the erection of the more delicate parts of the mechanism will be left until later when the dust in the Dome Area has been even further reduced. The organ will be available for use at the re-opening.

The galleries and main stalls on either side of the choir have been re-erected and the re-instatement of all the monuments against the main piers has been completed without damage.

During the period from April to the end of October 1929, 217 tons of timber and 120 tons of steelwork used for temporary purposes were taken down and removed from the Cathedral. The removal of the timber has minimised the risk of fire, against which precautions described in previous reports have been constantly maintained. The surplus steelwork has been disposed of on satisfactory terms.

The system of bracing between the inner and outer drains from the level of the Whispering Gallery upwards described in some detail in the last Report, has been completed.

The cementation and reinforcement of the thirty-two buttresses and radial walls have made steady progress, very nearly half of this work having been completed. In order to take advantage of the consolidation of this part of the structure it has been decided to incorporate in the system of non-rusting steel ties to the four bastions a belt to encircle the buttresses at the lowest possible level.

The series of plumbing, linear and theodolite measurements have been carried out at the usual regular intervals with results that are satisfactory in that they call for no remark. In connection with these measurements two sets of readings have been obtained from the new plumbing suspension points on the outside of the Cathedral.

The reading of the crack measurement plugs has been continued at regular monthly intervals throughout the entire Cathedral and the results are much the same as mentioned in the last Report.

Satisfactory progress has been made with the general architectural survey of the Cathedral. Accurate plans at two levels have been completed and a section along the main axial line extending from the top of Ludgate Hill in the west to Old Change in the east is at present being drawn.

The Chapter Clerk will report to the Committee as to the expenditure incurred since the date of the last Report.

#### WESTMINSTER ABBEY SACRISTY.

The Committee appointed last October by the Dean and Chapter to reconsider the various schemes for the provision of a Sacristy for the Abbey have now published their Report. They have reviewed 14 possible sites which have been suggested, and have dismissed some of them as impracticable, including the mediæval Sacristy site: they have rejected the "Model" site which had been proposed, and have suggested instead that a sacristy should be erected east of the Poet's Corner between the buttresses, where it could be extended if necessary by the use of the Chapter House Crypt, connected by an underground passage, and by an eastward extension underground. This sacristy would be approached easily from the high altar through St. Benedict's Chapel and its ancient doorway, and would not be visible from the street. The Dean and Chapter have agreed to reconsider these proposals.—Abstract from *The Times* report, 16 January 1930.

#### BRITISH SCHOOL AT ROME.

##### PROPOSED SCHOLARSHIP IN MEDIEVAL STUDIES.

Four years ago the Faculty of Archaeology, History and Letters of the British School at Rome founded a Scholarship tenable for two years of the annual value of £150 for competition among young graduates intending to conduct research in some part of the studies with which the Faculty is concerned.

It is the intention of the Faculty, as soon as the financial means are at its disposal, to found a second Scholarship of the same kind as the first, and so to establish an arrangement whereby one of its two Scholarships will be open for competition every year.

If this proves possible, the Faculty proposes to use any new resources that it may obtain for the encouragement of the study of history and art during the Middle Ages. Arrangements will be proceeded with as soon as fresh income is assured, either in the form of annual subscriptions amounting to £150 per annum for not less than two years or by a capital endowment.

Those who are interested in the proposed foundation are invited to communicate with the Secretary, Mr. R. P. Hinks, 50 Bedford Square, London, W.C.1.

## Allied Societies

*(The attention of Members of the Allied Societies is particularly called to this page)*

#### ESSEX, CAMBRIDGE AND HERTFORDSHIRE SOCIETY OF ARCHITECTS (CAMBRIDGE CHAPTER)

The ceremony of unveiling the plaque which is to be attached to the "Rose and Crown" building, Newmarket Road and East Road, Cambridge, to commemorate the award of the bronze medal presented by the Royal Institute of British

Architects to Mr. Basil Oliver, F.R.I.B.A., for the best building completed in the three counties in 1928, will be performed by the President of the Society, Mr. Wykeham Chancellor, M.A. (Oxon.), F.R.I.B.A., at 3 p.m., on Friday, 31 January 1930, after which guests will be entertained to tea in the Club Room by the proprietors (Messrs. Greene, King and Sons, Ltd.). Guests should assemble in the Club Room not later than 2.35.



## WEST YORKSHIRE SOCIETY OF ARCHITECTS.

Mr. G. H. Foggitt presided over a large attendance of members and students at a meeting held at Leeds on 23 January, under the joint auspices of the West Yorkshire Society of Architects and the Leeds College of Art, when an address was given by Mr. G. S. Francis, of London, the subject being "Electric Lighting in relation to Modern Tendencies in Architecture."

In the course of his address Mr. Francis said:—

"My first contact with the pure use of light as a definite feature in an architectural scheme was made when I saw the first Goetheanum near Basel in 1923. Standing on an outlying spur of the Jura, above the little village of Dornach, this building presented a remarkable sight. Apart from its size, which was considerable, it possessed an unusual quality. By all the accepted canons of architectural art, except truth, it stood condemned as fantastic, yet it was truthful in as much as the plan was adapted to its requirements and its elevations were a true expression of the plan. This building was designed by Dr. Rudolf Steiner as a college of Spiritual Science, the scientific investigation of life phenomena. In scale it was colossal, the main dome being larger than that of St. Peter's at Rome. It was not an architect but a Doctor of Philosophy who had given the new pattern. He had become conscious of a new urge in the world and sought to express it architecturally in the form which it suggested to him.

The exterior form of the building, about which I believe there has been some architectural controversy, was after all but the shell for an interior which was even more remarkable in appearance, the interest of its architectural features being enhanced by the play of light and colour directed upon them.

The light used was sunlight and by the special colouring and grouping of windows effects were produced of which I will attempt a verbal description. The main auditorium of the building was a large oval space with wide gangways and seats for over 1,000 persons. This space was surmounted by a large painted dome supported by seven pairs of massive wooden columns. The carving on the bases and capitals of the columns, as well as on the architrave, was done in such a manner that the tool marks were left in the wood, so that when varnished these great wooden surfaces presented a faceted effect.

Entrance to the auditorium was obtained through a vestibule illuminated by three large windows of flaming red. Surmounted by the vivid influence of the red, one opened the doors and entered the auditorium to meet the following colour impression. The first pair of columns, brightly illuminated by the brilliant green windows flanking the entrance doors, stood up like shafts of emerald. The next pair of windows were a brilliant blue the light from which, mingling with the green of the first pair, threw upon the second and third pair of columns a shimmering drake's neck effect. The third pair of windows were deep rose in colour and the light from these, mingling with the light from the blue pair, flooded the fourth pair of columns with a deep purple hue. The fourth pair of windows were of pale peach blossom tint so that the fifth, sixth and seventh pairs of columns melted through diminishing shades of violet into the pale amethyst tint thrown by the mingled light from all the windows upon the curtains of the stage which formed the background of the scene.

Unfortunately this building can no longer be seen. It was totally destroyed by fire in 1926, but its creator (Rudolf Steiner) again gave evidence that he possessed the faculty of creative imagination to a remarkable degree, by beginning at once to design the second Goetheanum on an even larger scale and in still more unusual form. No part of the old design was used in planning the new building. It was an act of deliberate creation instead of repetition. The exterior shell of the second Goetheanum was completed in October 1928, but work on the interior has hardly yet begun.

A glimpse of certain aspects of building activity in recent years fixes the impression that we have entered an era of creative artistic design. This prospect has been facilitated by modern invention and the use of new materials such as reinforced concrete and the steel frame, but the main impulse really arises from a quickening of artistic impulses expressed in the desire to evolve architectural styles more expressive of this dynamic phase of civilisation.

Since new designs in architecture, decoration and furnishing are now appearing it is only natural that the plastic properties of electric light should also participate in this development, but electric light did not come into its own all at once. Throughout the ages prior to the advent of electric light, all artificial illumination involved the burning of something, pine torches, animal oil, candles, mineral oil and gas. Consequently fittings for light had to be fixed vertically, provision had to be made for the inlet of air and an outlet for the fumes of combustion. They had also to be placed in accessible positions for lighting and extinguishing the flame. Electric lamps came first into use during the Victorian era and we have only to recall decorative ideas of that age, with its antimacassars, stuffed birds, wax fruit, etc., to understand why, when electric light arrived, no attempt was made to depart from the customary form and position of the lighting fittings. In fact, designers of that period often went out of their way to imitate the traditional fittings of the older methods of illumination.

Technical improvements in the lamp itself and the pioneer work of lighting engineers have enormously increased the efficiency of electric light, but to-day a demand arises for beauty as well as efficiency and therefore the new development that is taking place is the result of a kind of triple alliance, the alliance between the artist, the scientist and the engineer.

Thus a renaissance is now visible in the sphere of artificial illumination, a new spirit has entered the field and has already begun to direct the use of electric light into new and attractive channels. Already a departure from convention has been made through the evolution of means to employ electric light in broad masses instead of isolated points while lighting fittings, designed in the modern manner, exhibit in an interesting fashion the growing feeling for the artistic properties of the line: the angle and the plane.

Modern feeling for architectural form is undergoing a metamorphosis. This is shown by the changing style of buildings. Changes in exterior form must be balanced by suitable interior arrangements. Lighting fittings must be designed, and the disposition of light arranged to harmonise with the general design and spirit of the structure. Older forms of electric fittings, especially those that remain as a heritage from the age of candles and gas, are obsolete in a modern setting.

Interior and exterior artificial lighting is becoming of increasing importance as elements in architectural design. Casual examples of cornice, window and skylight illumination have been known for ten years or more but the real stimulus towards bolder and more consistent developments of decorative lighting probably dates from the Paris Exhibition in 1925.

A significant feature of this development is its bold departure from the use of points of high intensity to the employment of larger masses of low intensity light as a groundwork upon which higher light values can be used in accord with the designer's plan. With this appears also a marked restraint in the use of ornament, and closer attention to the texture and colour of the transmitting medium.

Another feature lies in the evolution of lighting units for the lamps which can be incorporated into the structure of the building in the form of ceiling or wall panels, luminous cornices, finials, columns, etc., other effects can be obtained by reflection, by diffusion through some translucent material, by a combination of both with added elements of direct lighting placed at strategic points to give emphasis to desired features.



Lighting development of this nature is yet in its infancy. Some forms will probably fail to meet the taste of the age and will fall by the wayside, but others will develop on lines that possess survival value and will live on through progressive metamorphosis until true artistic expression is achieved.

The lecturer showed a number of lantern slides illustrating his remarks on both exterior and interior illumination, and in reply to queries, said that the flood-lighting of a large building in the London district cost no more than two shillings per hour.

Mr. H. G. Foggitt moved the vote of thanks, which was seconded by Mr. J. Addison.

## NEW FORM OF CONTRACT.\*

### IMPORTANT DEVELOPMENTS.

We have had many inquiries about the new Form of Contract, and in replying individually we have explained that we have not been able to make any public pronouncement pending the issue of certain comprehensive memoranda which the National Federation of Building Employers have had in preparation. We have now had the opportunity of perusing these, the issue of which will be suspended for the time being, and some of which may never be issued at all. We have formed the opinion that some of them are of interest only to contractors, whilst some should be of great use to all concerned.

There would be placed within the latter category an annotation of the new form arranged in such a way as to include comprehensive and explanatory notes to follow each of the clauses of the Conditions of Contract. This annotation carefully prepared by Counsel, should have more extensive use than is at present contemplated.

We have closely examined the notes and observations as made by Counsel and find that in the explanations which they convey of the changes made from the 1909 Form the annotation is most helpful. Even if no further agreement had been contemplated between the parties concerned, we should have expressed the view that this document should be made available to all as early as possible.

The impression that has been created upon our mind in reading the annotation is that the material changes from the old Form are comparatively few, and, with respect to the judgment of those by whom the new Form was prepared, we feel quite sure that there are already good grounds for the modification of the document to meet most of the objections which we have heard expressed from the architects' point of view.

We believe, however, that it is well within the bounds of probability that a further agreement between parties will be effected. This belief is expressed mainly because it is felt that there should be agreement and that there should not be allowed to endure any points of difference which are capable of friendly settlement. It is greatly strengthened at the present time, however, on account of parties coming together again for further conference at an early date.

At this season especially, it is a pleasure to record that representative architects and contractors have had informal conferences with a view to finding some means of reconciling conflicting views. To this end the Building

Contractors have taken initiatory steps by way of communicating with the Royal Institute of British Architects.

Therein they have suggested that a Joint Tribunal or Board of Conciliation should be set up to whom should be entrusted the duty of reviewing the whole document and introducing such amendments as may be necessary to make it conform with the best modern practice and to meet so far as possible any objections that may be raised or found in actual practice.

Whilst this Joint Body would, in the first instance, devote themselves exclusively to questions relating to the Form of Contract, it is anticipated that their functions might most usefully be extended to the task of resolving many other difficulties that may arise from time to time, and for which their alternative title of Board of Conciliation may prove to be most appropriate.

If representatives of the parties concerned agree to meet in the same spirit as has animated those who have already conferred informally, we are satisfied that it will soon be found that all reasonable views with regard to the new Form of Contract will be met, and that there will result an improved Form which contracting parties can accept with confidence either in full if conditions are normal or as a basis of their contract agreement in cases where conditions are in any way exceptional.

It is satisfactory to know that the Building Contractors have suspended the issue of instructions to their members with regard to the use of the New Form in order that such conferences as may result from the overtures they have made shall proceed without embarrassing difficulties occurring. They have not specifically asked the architects similarly to suspend any activities, as they will feel well assured that the architects will similarly refrain from advice or instruction to their members which might reasonably result in embarrassment during the period of negotiations.

It is confidently felt that the Royal Institute of British Architects will accept the suggestion of the contractors and that thereby they will have advanced matters considerably towards the desired end of peace and progress in the building industry.

We think that contractors may well exercise further patience, and that, whatever may be the result of the overtures that have now been made, all concerned in the well-being of the industry will thank those disinterested representatives upon both sides for their efforts to open up another and brighter phase of these long negotiations.

## ELECTION OF STUDENTS, R.I.B.A.

The following were elected as Students at the meeting of the Council held on 6 January 1930:—

- ANDERSON : ALEXANDER ROBERT FORDYCE, c/o The Architectural Association, 34 Bedford Square, W.C.1.  
 ASPINALL : CHARLES EDMUND, 2 Kirkstall Avenue, Marton, Blackpool.  
 BANISTER : HARRY, "Edgbaston," Crosby Road South, Seaford, Liverpool.  
 BARKER : CECIL FREDERICK, Parkside, Park Road, Hanley, Staffs.  
 BATH : CHARLES GEORGE, 6 Railway View, Blackpool, S.S.  
 BEDFORD : ERIC, 10 Ashwell Road, Heston, Bradford, Yorks.

\* Extract from *The National Builder*, January 1930.



BICKNELL: PETER, 36 Edith Road, London, W.14.  
 BIRCH: THEODORE HERZL, 108 Bignot Street, Hightown, Manchester.  
 BLADES: BEATRICE AGNES, 13 Buckleigh Road, Streatham, S.W.16.  
 BOWMAN: FREDERICK, Station Lane End, Felton, Co. Durham.  
 BRICE: CASTLEDINE KEMPTON, "Trefula," St. Thomas, Swansea.  
 BROADWATER: HERBERT JAMES WILLIAM, 7 Andrews Road, Hackney, E.8.  
 CATCHPOLE: JACK, 69 Henley Road, Ipswich, Suffolk.  
 CAVES: CHARLES ALICE, 102 Ombersley Road, Bullitt Heath, Birmingham.  
 CHAPMAN: REGINALD CHARLES, "Mankdene," Sutton, Surrey.  
 COCHRAN: WILLIAM NORMAN, 31 Middlesex Road, Bootle, Liverpool.  
 DICKINSON: SIDNEY NAYLOR, 67 Bedford Road, Clapham, S.W.4.  
 DOCTOR: RHICAH EDUHL, c/o The Architectural Association, 34 Bedford Square, W.C.1.  
 EDMONDS: REGINALD, 12 Amesbury Road, Moseley, Birmingham.  
 ELLIS: HAROLD HARPER, 1 Beauchamp Road, E. Molesey, Surrey.  
 FAIRWEATHER: GEORGE, 23 St. Nicholas Road, Trinity Road, Balham, S.W.17.  
 FORSYTH: JOHN MORRIS, 24 The Park, London, N.W.11.  
 GERRARD: PHILIP, 21 Leonard Avenue, Sherwood, Nottingham.  
 HANCOCK: SYDNEY CHARLES, 26 Dovedale Road, E. Dulwich, S.E.22.  
 HANNAM: FRANCIS LAMBSON, 246 Brixton Road, London, S.W.9.  
 HOWARD: WILLIAM FREDERICK, 88 Guilford Street, London, W.C.1.  
 JOHNSON: FREDERICK, 6 St. John's Street, Bury St. Edmunds.  
 KILBEY: ALFRED EDWARD, 20 Radnor Terrace, London, S.W.8.  
 LOCK: CECIL MAX, Queen's Walk, Cassinbury, Watford, Herts.  
 MARSHALL: ALAN JOHN RICHARD, "Littlecroft," Long Moor, Long Eaton, near Notts.  
 MARSTON: WINSTON EWART, 25 Vaughan Street, Coalville, near Leicester.  
 MASSE: DAVID MEARDS, 11 Cleveley's Grove, Higher Broughton, Manchester.  
 MAY: REGINALD JOHN, 6 Marine Parade, Southend-on-Sea, Essex.  
 MEREDITH: HAROLD EDWARDS, Fir Tree House, Staple Hill, near Bristol.  
 MITCHELL: TOM NOEL, 113 Bolton Street, Blackpool, S.S.  
 MOORE: JOHN ROBERT, c/o Borough Engineers Department, Town Hall, Accrington, Lancs.  
 PHILLIPS: FRANCIS HARRY EDWARD, 9 Sylvan Hill, Upper Norwood, S.E.19.  
 PRATT: ARTHUR RONALD, 3 Torrington Square, London, W.C.1.  
 PYNE: ALBERT SHIRLEY, 2 Harland Road, Queens Park, N.W.6.  
 RIEVE: CECIL EDWARD, 62 Warwick Square, London, S.W.1.  
 SALTER: EDWARD THOMAS, 23 Roderick Road, Hampstead, N.W.3.  
 SHACKLETON: JOHN, "Moorcroft," Park Road, Littleborough, near Manchester.  
 SMITH: ARTHUR CHESTER, "Lustleigh," 124 May Place Road, Bexley Heath, Kent.  
 SMITH: ERIC SYDNEY, 28 Killarney Road, Wandsworth Common, S.W.18.

SMITH: WILLIAM JOHN, 9 Mayhill Road, Charlton, S.E.7.  
 SNOW: HARRY ALEXANDER, "Grafton," Powderham Road, Newton Abbot.  
 STARK: DOUGLAS ROGERS, "Pitchcroft," Grove Park, Wandstead, E.11.  
 STEWART: DONALD ARTHUR, 71 Commercial Road, Portsmouth.  
 STORRY: EDWIN JOHN, 47 Thorne Road, Doncaster.  
 THOMPSON: BENJAMIN HAROLD, "Burderep," near Swindon, Wilt.  
 THORNTON: HARRY, "Wimereux," Seabfield Road, Blackpool, N.5.  
 TITLING: ARTHUR RAYMOND, 15 Henty Road, Worthing, Sussex.  
 TODD: GEORGE RICHARD, 68 Hucknall Road, Nottingham.  
 WESTCOTT: JOHN SHORLAND, Moseley Lodge, Cheshire.  
 WESTMORELAND: CHARLES EDWARD, 66 Worple Road, Wimbledon, S.W.19.  
 WHITEHEAD: FRANK, 12 Granville Street, Berry Hill, Heckmondwike, Yorkshire.  
 WILCOCKSON: IAN DOUGLAS, 12 Tennyson Avenue, Chesterfield.  
 WYNWARD: FRED, 135 Wigan Road, Westboughton, near Bolton, Lancs.  
 WYNNE: BERN, 16 Museum Street, Ipswich.

#### R.I.R.A. PROBATIONERS

During the month of December 1929 the following were registered as Probationers of the Royal Institute:—

BOZIER: GEORGE ALFRED, 96 Shotdown Street, Caiford, S.E.6.  
 BRIGHT: GEDFREY NEWNHAM, "Somersby," Oundle Drive, Wollaton Park, Notts.  
 COOPER: DUDLEY LEONARD, "The Buggiss," North Avenue, Gosforth, Newcastle-on-Tyne.  
 CUNLIFFE: IAN FREDERICK, 17 Woodland Avenue, Ribblesdale, Preston, Lancs.  
 DICKER: VERA GWENDOLINE, 12 Bolton Street, Brighams, S. Devon.  
 DRINKWATER: NORMAN, 74 Ryelands Street, Hereford.  
 FRYE: GILBERT ROY, 629 Leeds Road, Bradford, Yorks.  
 GILLIE: CYRIL, 33 Belle Vue Park, Sunderland, Co. Durham.  
 GOWAN: HORACE ARTHUR RENDEL, 35 Comely Bank, Edinburgh.  
 HAM: ARTHUR JOHN LAWRENCE, Tetton Gate, Kingstons, Taunton.  
 HEMMING: WILLIAM JAMES, 50 Shakespeare Street, Leicester.  
 HOOD: ANDREW STEWART, 142 High Street, Tranent, East Lothian, Scotland.  
 HOPKINS: WILLIAM ALBERT LAWRENCE, 8 Melrose Avenue, Reading.  
 LASHBY: FRANCIS PERCY, "Guycliffe," Minchinhampton, near Stroud, Glou.  
 REACH: ALAN, 9 Grange Loan Gardens, Edinburgh.  
 SELBY: LAWRENCE JOHN, 1 Lindisfarne Avenue, Leigh-on-Sea, Essex.  
 STARK: DOUGLAS ROGERS, "Pitchcroft," Grove Park, Wandstead, E.11.  
 STEPHEN: KENNETH LESLIE, 78 Corniston Road, Edinburgh.  
 STONHAM: JOHN YORRKE THOMPSON, Bookham Lodge, Cobham, Surrey.  
 TURNER: ERIC HENRY, 33 Melton Road, W. Bridgford, Notts.  
 WELLS: GEDFREY ROBERT, "Old Farm," Weston, Ringsfield, Beccles, Suffolk.  
 WESTCOTT: JOHN SHORLAND, Moseley Lodge, Cheshire.  
 WEBB: ARTHUR GEORGE, "Greenways," Dunbeviad Road, Launceston, Cornwall.



### ROYAL ACADEMY OF ARTS. ARCHITECTURAL EXHIBITS 1930.

A notice was published in the JOURNAL for 10 August 1929, to the effect that it had been decided that for the Royal Academy Summer Exhibition of 1930, the Architectural exhibits of Members would be limited to geometrical drawings not exceeding  $\frac{1}{2}$ -inch scale, and that preference would be given to such drawings submitted by non-members.

It has now been ascertained that the preference which is to be given to geometrical drawings, will cover normal working drawings: elevations, plans and sections rendered in water-colour, etc., if geometrical, but not isometric drawings.

## Examinations

### R.I.B.A. FINAL EXAMINATION, INDIA.

The R.I.B.A. Examination Board in India have arranged to hold the R.I.B.A. Final Examination in Bombay from the 2nd to 9th April 1930. The last day for receiving applications, which should be sent to the Secretary of the R.I.B.A. Examination Board in India, 43, Apollo Street, Fort, Bombay, is March 3rd.

### R.I.B.A. STATUTORY EXAMINATION FOR DISTRICT SURVEYOR AND THE EXAMINATION FOR BUILDING SURVEYOR.

The R.I.B.A. Statutory Examination for the Office of District Surveyor under the London Building Acts, and the Examination for Building Surveyor under Local Authorities, will be held at the R.I.B.A., London, on 7, 8 and 9 May, 1930.

The closing date for receiving applications for admission to the Examinations, accompanied by the fee of £3 3s., is 16 April 1930.

Full particulars of the Examinations and application forms can be obtained from the Secretary R.I.B.A.

### R.I.B.A. EXAMINATIONS, NOVEMBER AND DECEMBER 1929.

The questions set at the Intermediate, Final and Special Examinations, held in November and December 1929, have been published, and are on sale at the Royal Institute, price 1s. (exclusive of postage).

## Notices

### SPECIAL AND BUSINESS GENERAL MEETINGS. 3 FEBRUARY 1930.

A Special General Meeting will be held on Monday, 3 February 1930, at 8 p.m. for the following purposes:—

To read the minutes of the Special General Meeting held on 18 March 1929.

To elect the Royal Gold Medallist for the current year. The Chairman to move:—

"That subject to His Majesty's gracious sanction, the Royal Gold Medal for the promotion of architecture be presented this year to Mr. Percy Scott Worthington, M.A. Oxon., Litt.D., F.S.A. [P.], in recognition of the merit of his work as an architect."

### THE SEVENTH GENERAL MEETING.

The Seventh General Meeting (Business) of the Session 1929-30 will be held on Monday, 3 February 1930, at the conclusion of the Special General Meeting, for the following purposes:—

To read the Minutes of the General Meeting (Ordinary) held on Monday, 20 January 1930; formally to admit members attending for the first time since their election.

To proceed with the election of the candidates whose names were published in the Journal for 11 January 1930 (pp. 177-8).

To announce the names of candidates nominated by the Council for election to the various classes of membership.

### INFORMAL DISCUSSION OF MATTERS OF PROFESSIONAL INTEREST.

At the conclusion of the above business meeting, there will be an informal and private discussion of matters of current professional interest or concern. Members are invited to bring up for discussion, with or without notice, subjects of professional interest or difficulty.

### ELECTION OF MEMBERS, 16 JUNE 1930.

Associates who are eligible and desirous of transferring to the Fellowship are reminded that if they wish to take advantage of the election to take place on 16 June 1930 they should send the necessary nomination forms to the Secretary R.I.B.A. not later than Saturday, 8 March 1930.

### LICENTIATES AND THE FELLOWSHIP.

The attention of Licentiates is called to the provisions of Section IV, Clause 4 (b) and (ii) of the Supplemental Charter of 1925. Licentiates who are eligible and desirous of transferring to the Fellowship can obtain full particulars on application to the Secretary R.I.B.A., stating the clause under which they propose to apply for nomination.

### THE NATIONAL ASSOCIATION OF WATER USERS.

Members are reminded that the National Association of Water Users, on which the R.I.B.A. is represented, exists for the purpose of protecting the interests of consumers. Members who experience difficulties with water companies, etc., in connection with fittings are recommended to seek the advice of the Association. The address of the Association is 46 Cannon Street, London, E.C.4.

### EXHIBITION IN THE R.I.B.A. GALLERIES.

The original Isometric drawing, showing the construction of St. Paul's Cathedral, measured and drawn by Mr. R. B. Brook-Greaves, in collaboration with Mr. W. Godfrey Allen and with the assistance of Mr. Matthew Dawson, F.R.I.B.A. and Mr. E. J. Bolwell, will be on exhibition in the R.I.B.A. East Gallery from Monday, 27 January to Saturday, 8 February, both dates inclusive. The Exhibition will be open between the hours of 10 a.m. and 8 p.m. (Saturdays 5 p.m.).

The drawing is of great educative value, and members and students are urged to take an early opportunity of inspecting it. Reproductions can be obtained on application to the Secretary R.I.B.A. price £1 10s. 6d. each.



## Competitions

### ACCRINGTON: NEW POLICE AND FIRE STATIONS

The Accrington Corporation invite architects to submit, in open competition, designs for new Police and Fire Stations.

Assessor: Mr. Herbert J. Rowse [F.]

Premiums: £250, £150 and £100.

Last day for receiving designs, 28 February 1930. Conditions of the competition may be obtained on application to the Town Clerk, Town Hall, Accrington. Deposit £2 2s.

### CLYDEBANK: WAR MEMORIAL

The Clydebank Town Council are inviting the submission of designs for the erection of a cenotaph as part of the war memorial. Further particulars and conditions may be obtained on application to the Town Clerk, Municipal Buildings, Clydebank.

(Conditions have not yet been received.)

### GOSPORT: PLEASURE RESORT AND GROUNDS

The Competitions Committee desire to call the attention of Members to the following notice which has been issued by the Institute:—

"Members of the Royal Institute of British Architects and of its Allied Societies must not take part in the above competition because the conditions are not in accordance with the published Regulations of the Royal Institute for Architectural Competitions."

### KING'S LYNN: PROPOSED NEW SCHOOL

The Competitions Committee desire to call the attention of Members to the following notice which has been issued by the Institute:—

"Members of the Royal Institute of British Architects and of its Allied Societies must not take part in the above competition because the conditions are not in accordance with the published Regulations of the Royal Institute for Architectural Competitions."

### LIVERPOOL: PROPOSED PIER HEAD IMPROVEMENTS

The Liverpool City Council propose to offer premiums of 1,000 guineas and 500 guineas in connection with a competition for the improvement of the amenities of the Pier Head. [Conditions are not yet available.]

### ONGAR: COTTAGE HOSPITAL

The Competitions Committee desire to call the attention of Members to the following notice which has been issued by the Institute:—

"Members of the Royal Institute of British Architects and of its Allied Societies must not take part in the above competition because the conditions are not in accordance with the published Regulations of the Royal Institute for Architectural Competitions."

### PLYMOUTH: SUNDAY SCHOOL, FIRST CHURCH OF CHRIST SCIENTIST

The Competitions Committee desire to call the attention of Members to the fact that the conditions of the above competition are not in accordance with the Regulations of the R.I.B.A. The Competitions Committee are in negotiation with the Promoters in the hope of securing an amendment. In the meantime Members should not take part in the competition.

## Members' Column

### MESSRS. MAYELL AND COLE

Mr. A. Y. MAYELL [L.] formerly practising as Hickin and Mayell, has taken into partnership Mr. L. E. Cole [A.] The practice will be carried on under the title of Mayell and Cole.

### CHANGE OF ADDRESS

Mr. JOHN W. WILSON, F.R.I.B.A., A.M.T.F.I., has moved to more convenient offices at No. 32 Watkinson Street, Birmingham. Telephone: Central 7106.

### COLLABORATION WANTED

A GENTLEMAN of middle age, quietly practising in West End and highly experienced, seeks opportunity of discussing the merits of an association with a senior or firm willing to afford a wider aspect for the writer's ambition and necessity to do far more work.—Reply Box 2082, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

### PARTNERSHIP WANTED

A R.I.B.A., young, experienced and enthusiastic, requires partnership in well-established practice, Southern district. Some capital available.—Reply Box 1130, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

### ASSISTANCE OFFERED

Associate practising in West End wishing to extend present practice, would welcome opportunity to give assistance to other architects or surveyors in any branch of practice. Phone: Gerrard 6117, or apply Box 2897, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

### FOR SALE

*Dictionnaire Raisonné de l'Architecture française des XI<sup>e</sup> au XVI<sup>e</sup> siècle.* 10 vols. 1858-68. Also *Dictionnaire Raisonné du Mobilier français.* 6 vols. 1868-75. Both works by M. Viollet-le-Duc 16 volumes uniformly bound in handsome brown Morocco boards, perfect condition. For further particulars apply Box 2397, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

## Minutes VI

### SESSION 1929-1930.

At the Sixth General Meeting (Ordinary) of the Session, 1929-1930, held on Monday, 20 January 1930, at 8.30 p.m., Sir Banister Fletcher, F.S.A., President, in the Chair.

The Attendance book was signed by 26 Fellows (including 12 members of Council), 26 Associates (including 4 Members of Council), 5 Licentiates, and a very large number of visitors.

The Minutes of the General Meeting held on 6 January 1930, having been published in the JOURNAL, were taken as read, confirmed, and signed as correct.

The Hon. Secretary announced the decease of:—

Sir Lawrence Weaver, K.B.E., F.S.A., elected Hon. Associate 1910.

and it was Resolved that the regrets of the Institute for his loss be entered on the Minutes and that a message of sympathy and condolence be conveyed to his relatives.

The following members attending for the first time since their election were formally admitted by the President:—

Mr. William Crabtree [A].  
Mr. Clifford E. Culpin [A].  
Mr. W. A. Eden [A].  
Mr. Alex. J. Lowe [A].  
Mr. W. B. Mowbray [A].

The President, having delivered his address to students, a vote of thanks was passed to him by acclamation on the motion of the Rt. Hon. Viscount Burnham, G.C.M.G., C.H. [Hon. F.] seconded by Sir William Llewellyn, K.C.V.O., P.R.A., and supported by the Rt. Hon. George Lansbury, M.P., H.M. First Commissioner of Works.

Mr. W. H. Ansell, M.C. [F.], read a review of the works submitted for the Prizes and Studentships 1930 and illustrated it by lantern slides. On the motion of the President, a vote of thanks was passed to Mr. Ansell by acclamation.

The Presentation of Prizes was then made by the President in accordance with the award, as follows:—

The R.I.B.A. Title Prize: A Certificate and £50.—The



Prize was awarded to: Mr. Arthur Charles Collins of Melbourne, Australia, and the Certificate has been despatched to Australia for presentation to Mr. Collins at a Meeting of the Royal Victorian Institute of Architects. Certificates of Hon. Mention to: (1) Mr. Eric Francis Stacy (Department of Architecture, Northern Polytechnic); (2) Mr. Harry Banister (The Liverpool School of Architecture, University of Liverpool); (3) Mr. Eric Frank Starling (School of Architecture, University of London).

*The Soane Medallion and £150*—The Soane Silver Medal to: Mr. John Leslie Martin (School of Architecture, Victoria University, Manchester). Certificate of Honourable Mention to: Mr. Sidney Edward Thomas Cusdin (Architectural Association, London).

*The Owen Jones Travelling Studentship: A Certificate and £100*—The Owen Jones Certificate to: Miss Kathleen Anne Veitch (Architectural Association, London).

*The Royal Institute Silver Medal and £75 for Measured Drawings*—The Silver Medal and Cheque for £75 to: Miss Sadie Speight (School of Architecture, Victoria University, Manchester).

*The Royal Institute Silver Medal and £50 for an Essay*—The Silver Medal and Cheque for £50 to: Mr. Ronald Aver Duncum [A.] (Architectural Association, London). Certificate of Honourable Mention to: Mr. William Arthur Eden [A.] (School of Architecture, University of Liverpool).

*The Henry Saxon Snell Prize: A Certificate and £100*—(Offered jointly by the R.I.B.A. and the A.A.) The Henry Saxon Snell Certificate to: Mr. Kenneth Harry Read [A.].

*The R.I.B.A. (Alfred Bosson) Travelling Studentship*—Silver Medals to: (1) Mr. Edward Forster [A.] (School of Architecture, University of London). (2) Mr. Harold Bertram Rowe [A.].

*The R.I.B.A. Hunt Bursary: A Certificate and £50*—The Hunt Certificate to: Mr. Trevor Mervyn Daniel [A.] (School of Architecture, University of Cambridge).

*The R.I.B.A. Neale Bursary: A Certificate and £70*—The Neale Certificate to: Mr. William Arthur Smith Cornock [A.] (School of Architecture, Robert Gordon's College, Aberdeen).

*The R.I.B.A. Ashpitel Prize 1929: Books to the value of £10* to: Mr. Ralph Herbert Brentnall (Royal West of England Academy, Bristol, School of Architecture).

*The R.I.B.A. Silver Medal for Students of Schools of Architecture Recognised for Exemption from the Final Examination*—The Silver Medal to: Mr. John Leslie Martin (School of Architecture, Victoria University, Manchester). Certificate of Honourable Mention to: Mr. William Crabtree [A.] (The Liverpool School of Architecture, University of Liverpool).

*The R.I.B.A. Bronze Medal and Books to the Value of £5 for Students of Schools of Architecture Recognised for Exemption from the Intermediate Examination*—Mr. Alexander George Gibson (Architectural Association, London).

The President introduced to the Meeting the successful Candidates for the following Studentships and Prizes awarded during the year 1929, and presented them with Certificates—

*The R.I.B.A. (Archibald Dawson) Scholarships*. (To encourage the Study of Construction and use of Materials.) Certificates to: Mr. Francis James Massey Genned (The Liverpool School of Architecture, University of Liverpool). Mr. John Paley Ward (The Welsh School of Architecture).

*The R.I.B.A. (Henry Jarvis) Studentship at the Architectural Association*. (To encourage the Study of Construction.) Certificate to: Mr. Guy Reginald Linfield.

*The R.I.B.A. (Howard Gills) Studentship at the Architectural Association*. (Awarded to a Student in the first year of the School Course.) Certificate to: Mr. Ferguson Sprout.

*The R.I.B.A. (Donaldson) Silver Medal at the Bartlett School*

*of Architecture (University of London)*. (Awarded to the Student who obtains the first place in the Architectural Classes.) Certificate to: Miss Annie Elizabeth Hall.

*The R.I.B.A. Maintenance Scholarship in Architecture*. (To enable promising students to attend one of the Schools of Architecture Recognised for Exemption from the R.I.B.A. Examinations.) Certificate to: Mr. Gavin Graham Laidler (Architectural Association School of Architecture).

The proceedings closed at 10.20 p.m.

## ARCHITECTS' BENEVOLENT SOCIETY

(Insurance Department)

### HOUSE PURCHASE SCHEME

(for property in Great Britain only).

The Society is able, through the services of a leading Assurance Office, to assist an Architect (or his client) in securing the capital for the purchase of a house for his own occupation, on the following terms:—

#### AMOUNT OF LOAN.

Property value exceeding £666, but not exceeding £2,500, 75 per cent. of the value.

Property value exceeding £2,500, but not exceeding £4,500, 66⅔ per cent. of the value.

The value of the property is that certified by the Surveyor employed by the Office.

RATE OF INTEREST, 5½ per cent. gross.

#### REPAYMENT.

By means of an Endowment Assurance which discharges the loan at the end of 15 or 20 years, or at the earlier death of the borrower.

#### SPECIAL CONCESSION TO ARCHITECTS.

In the case of houses in course of erection, it has been arranged that, provided the Plan and Specification have been approved by the Surveyor acting for the Office, and the amount of the loan agreed upon, and subject to the house being completed in accordance therewith, ONE HALF of the loan will be advanced on a certificate from the Office's Surveyor that the walls of the house are erected and the roof on and covered in.

NOTE.—In 1928, over £20,000 was loaned to architects under this scheme, and as a result over £100 was handed to the Benevolent Fund.

If a quotation is required, kindly send details of your age next birthday, approximate value of house and its exact situation, to the Secretary Architects' Benevolent Society, 9 Conduit Street, London, W.

Members sending remittances by postal order for subscriptions or Institute publications are warned of the necessity of complying with Post Office Regulations with regard to this method of payment. Postal orders should be made payable to the Secretary R.I.B.A., and crossed.

It is desired to point out that the opinions of writers of articles and letters which appear in the R.I.B.A. JOURNAL must be taken as the individual opinions of their authors and not as representative expression of the Institute.

#### R.I.B.A. JOURNAL.

DATES OF PUBLICATION.—1930.—8, 22 February; 8, 22 March; 12, 26 April; 10, 24 May; 7, 21 June; 12 July; 9 August; 20 September; 18 October.



# Journal of the Royal Institute of British Architects

THIRD SERIES

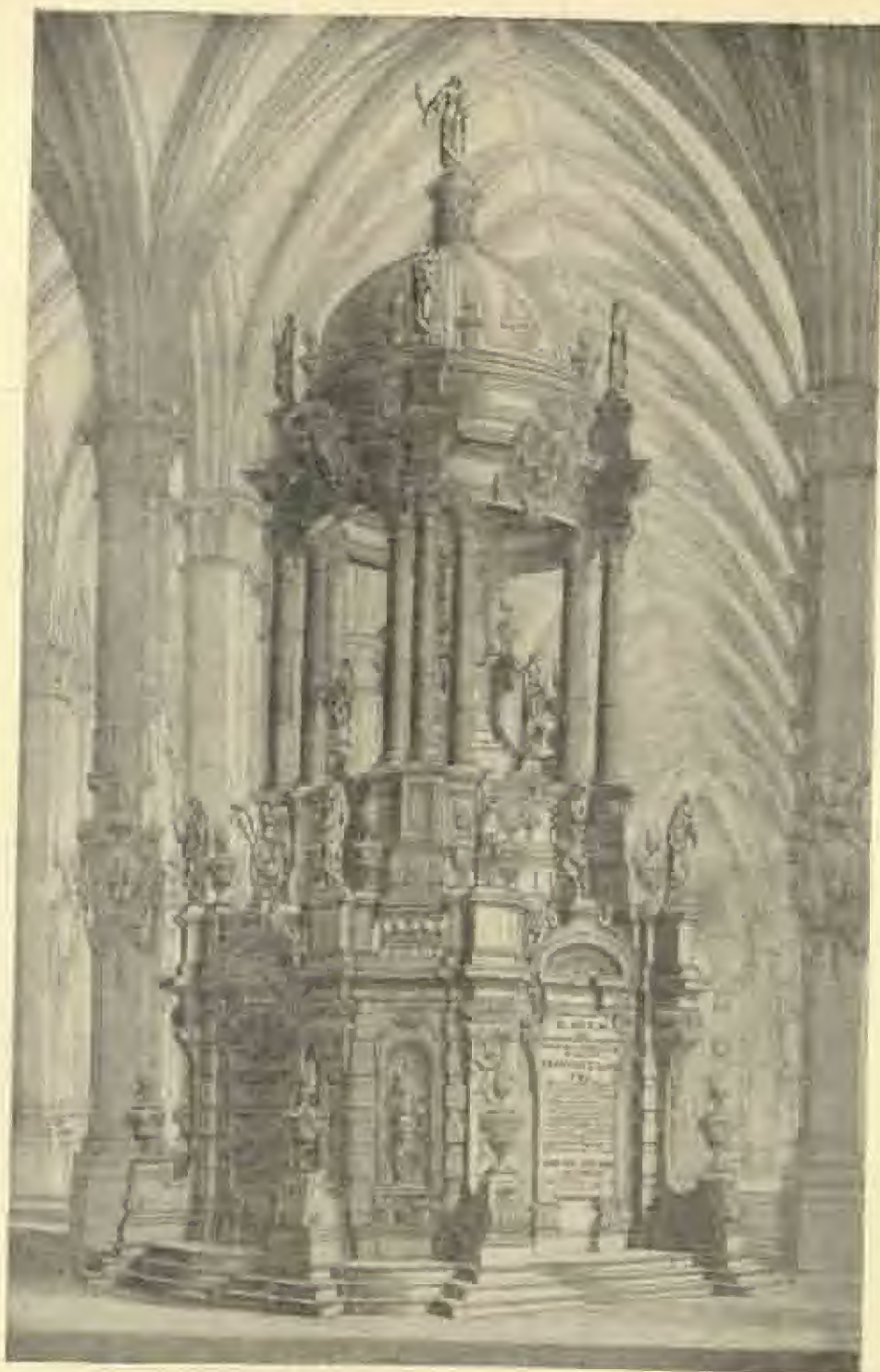
VOL. XXXVII. No. 7

8 FEBRUARY 1930

## Contents for 8 February 1930

	Page
DESIGNS FOR A CATAFALQUE. By Giuseppe Galli Bibiena .. .. .	<i>Pentaplex</i>
AN ADDRESS TO STUDENTS. By the President, Sir Banister Fletcher, F.S.A. ..	219
VOTE OF THANKS TO THE PRESIDENT .. .. .	223
REVIEW OF THE R.I.B.A. PRIZES AND STUDENTSHIPS, 1930. By W. H. Ansell [F.] ..	224
REVIEWS :	
SIR REGINALD BLOMFIELD'S "BYWAYS." By A. S. G. Butler [F.] .. .. .	235
ALFRED C. FRYER'S "WOODEN MONUMENTAL EFFIGIES IN ENGLAND AND WALES." By Charles Spooner [F.] ..	237
NOTES ON SOME RECENT FOREIGN PERIODICALS. By Grahame B. Tibbels [F.] .. ..	238
CORRESPONDENCE :	
ARE BUILDING BYE-LAWS DESTRUCTIVE OF RURAL BEAUTY? By C. B. Borchwick, M.Inst.M. and Civ.E. ..	239
CHARING CROSS BRIDGE : Letters by the President, Sir Banister Fletcher, F.S.A. ..	240
THE PRESERVATION OF RURAL ENGLAND .. .. .	241
THE ROYAL GOLD MEDAL FOR ARCHITECTURE .. .. .	241
SIR LAWRENCE WEAVER, K.B.E. By Sydney D. Kimon [F.], Hon. Secretary R.I.B.A. ..	241
ALLIED SOCIETIES :	
GLoucestershire Architectural Association .. .. .	242
HANTS AND ISLE OF WIGHT Architectural Association .. .. .	242
SHEFFIELD, SOUTH YORKSHIRE AND DISTRICT SOCIETY OF ARCHITECTS AND SURVEYORS ..	243
WEST YORKSHIRE SOCIETY OF ARCHITECTS .. .. .	243
ISOMETRIC DIAGRAM OF THE CONSTRUCTION OF THE DOME OF ST. PAUL'S CATHEDRAL ..	244
NEW BUILDING MATERIALS AND PREPARATIONS .. .. .	244
EXAMINATIONS .. .. .	244
PRIZES AND STUDENTSHIPS .. .. .	244
NOTICES .. .. .	244
APPLICATIONS FOR MEMBERSHIP .. .. .	244
QUESTIONS AND REPLIES .. .. .	246
COMPETITIONS .. .. .	247
MEMBERS' COLUMN .. .. .	247
MINUTES .. .. .	248





DESIGN FOR A CATHÉDRALE BY GIUSEPPE GALLI BIGHIENA [1696-1756]  
 The Original Drawing from which *Plat III*, of "Architecture & Perspective" (fo. Augsburg 1740) was engraved  
 R.I.B.A. Collection.





## An Address to Students

BY THE PRESIDENT, SIR BANISTER FLETCHER, F.S.A.

*[Read before the Royal Institute of British Architects on Monday, 20 January 1930.]*

**A**N address to students of the Royal Institute of British Architects has for many years been one of the duties of the President, and it may appear strange to you that I should say that it does not seem long since I was myself a student listening to the President of that time. I do not know that I can add much that is new to the valuable addresses of my predecessors. We must, however, remember that, though the matter may not be new, it is presented from a new angle by a new mentality, and, moreover, the presence of new students justifies the annual repetition of an address as a stimulus to renewed effort in your work.

I should feel inclined, if I had my way, to deal with the study of architecture from my own experience of the difficulties which have to be surmounted, and the setbacks and disappointments which every architect must encounter both in his preparatory stage and in his after career, and it would perhaps be of more interest to talk to you in less formal surroundings than this occasion requires.

However, I hope to put before you some thoughts, ideas and suggestions which I believe may be of use to you in preparing to start on the

great adventure of life. I would remind you of the noble profession you have selected, and of the great architects whom you follow, who have enriched the world with creations of surpassing beauty so that it is difficult to imagine what the conditions of life would be without them. If we think of architecture in this aspect it must arouse a spirit of enthusiasm and create a determination to make a constant effort to design buildings which may go down to posterity as worthy examples of creative work of the age in which we live.

It is well from time to time to review the history of our art in the different countries of the world in order that we may realise the importance and diversity of an architect's work.

Egypt stands for all time marked out by her Pyramids, those stupendous mounds of masonry, by her mysterious and awe-inspiring Temples and Tombs which, with their wall sculptures, form a lithic history of the race, and are of unending attraction and interest. Greece, that wild and mountainous country, may be considered the fountain head of purity in architecture, and the Parthenon, created by Ictinus and Callicrates, with the co-operation of the sculptor Pheidias, excels all other temples, combining as it does in



the most successful manner architecture, painting and sculpture, and Greek architecture, both on the mainland and in the islands and colonies, has exercised incalculable influence on succeeding art.

Rome, spreading her Empire over the whole of the then-known world, and influenced by Greek art, practically laid the foundation of subsequent development in architecture, for wherever the Roman standards were planted there sprang up the peculiarly Roman type of building. The Pantheon at Rome is a notable achievement in what was then a new form of building, as it owed the possibility of its construction to the invention of concrete, while the *Thermae*, Basilicas, Forums, and Amphitheatres throughout the Empire are all instances of Roman enterprise in architecture, and of the novel designs they were able to produce owing to the free use of concrete, which was employed universally much as to-day we are at liberty to resort to reinforced concrete and steel framing.

In order to realise the progressive adaptability of our great art, we must note that the Mediæval period was productive of other new types of structure—Churches, Castles, Houses, Monasteries—which, although they differ from the Roman manner of building, yet derive many of their features, both constructive and decorative, from Roman precedent. The Renaissance period itself, with new Palaces, Mansions, Guildhalls and Town Halls, while assimilating the features of old Roman art, also owed much to the mediæval period both in planning and detail. There were giants in those days, men of vision and of practice, men of versatility who were masters in our art, such as the inventive Brunelleschi, the correct Vignola, the playful Sansovino, the mighty Michelangelo, and the scholarly Palladio. In England, Inigo Jones and Sir Christopher Wren, while their designs were based upon Italian Masters, still stand out as great Englishmen who have exercised enormous influence on later English architecture. Modern architecture, however, in its accumulated knowledge of all previous phases of architectural development—Egyptian, Greek, Roman, Mediæval and Renaissance—has naturally been influenced by such knowledge, but must be controlled by the necessity of planning buildings suitable for the diverse requirements of our peculiarly complex civilisation. England has had her own distinguished line of architects, of whom we may

well be proud, and whose work you may confidently follow, while also keeping in mind the necessity of developing your own ideas and of realizing the new needs, great and small, of our ever-changing conditions, both in the Mother Country and in the Dominions overseas.

You will, I trust, remember the six conditions which in all countries and ages of the world exercise their determining influence upon architectural style—those we may regard as permanent officials in control of architecture. But in these later days there are special aspects of great material importance which call upon us to exercise ingenuity in plan, elevation and general detail. There is the serious increase in the cost of labour, and this would appear to be a new condition which has come to stay, if not to grow. Therefore you must decide what is the best use to which you can assign the funds at your disposal. You can allow this limitation to hamper your style, or you can turn it into an aid to inventiveness. Now here again you are not left without a signpost from the past, for the great Sir Christopher Wren was faced with this same difficulty in an aggravated form when with very restricted outlay he had to rebuild the city churches after the Great Fire. You can study each church and notice how he apportioned the money at his disposal to that part of the design which would be most effective—one of the great lessons you can learn from this past master in our art. Triumph over new difficulties is the test of power to turn untoward conditions to inventiveness in design.

The higher cost of labour is a factor that controls, not only the actual work on the building, but also the prices of all materials, whether stone, bricks, reinforced concrete, wood, lead, tiles, steel, and all this has to be estimated for in a new way, and so there must be a marked change in architectural treatment to meet this economic necessity.

We may, indeed, even be thankful that superfluous ornament and meaningless features and dust-collecting mouldings are being largely eliminated in the search for reduction of cost. Here I would sound a warning note that you should study the wishes of your client as to expenditure. You must not allow your own ideas of design to outrun his ideas of outlay. You must learn to cut his coat according to his cloth, just as Wren did in his churches. Moreover, now that public buildings, business



premises, and private dwellings have to be increasingly huddled together, especially in towns, it becomes imperative to seek repose in design, besides providing a structural surface that does not lend itself to the collection of smoke and dirt. Reinforced concrete as a modern material is likely to produce novel features when it is used as the carcase of a building, for it demands great judgment in its external treatment. These and many more problems must not be forgotten when preparing your designs.

The training for students is now carefully laid down by the Board of Architectural Education, and there is little that can be added to the actual syllabus. The knowledge of what has already been accomplished seems a necessary part of a student's education in architecture, because, if studied aright, it means that you have realised how the problems have been solved by the architects of successive periods. Nowadays everyone who claims to be educated knows something about the architecture of the past, and an architect should at least know as much about the history of his art as his client. It is indeed encouraging to realise the increasing public interest in architecture, and in some of the great public schools it is being taught as a necessary and stimulating aid to the understanding of history; and the R.I.B.A. has even recently instituted, as you know, a series of lectures to children on the subject.

A comprehensive knowledge of the most up-to-date methods of construction is of the greatest importance, and too much stress cannot be laid on this aspect of our work, for design and construction can never be divorced, and indeed cannot be too intimately connected, so that steel construction, graphic statics and calculations in regard to structures are properly included in the necessary professional education of an architect.

I regard it as of supreme importance in a student's training that he should study and measure old buildings. Sketching facilitates your powers of drawing in perspective and of making studies of your own proposed buildings as they will actually appear, while measuring existing buildings puts you in touch with actual construction and brings you into communion with the craftsmen of the past by showing you how they attacked their difficulties and carried out their work to a successful completion. Have a sketch book always with

you to jot down any detail of construction which will be of use in your own designs. The R.I.B.A. medal for measured drawings is, in this respect, one of the most useful competitions for which a student can enter, as he thus gains much practical knowledge.

I have many pleasant recollections of the twenty successive years that I went on the A.A. excursion to different parts of England when we sketched and learnt to love the architecture of the homeland, besides making many lasting friendships.

It is impossible to lay too much stress on the importance of design in an architect's training, since designing for practical requirements is the architect's *raison d'être*, and he is most successful when he arranges plan and elevation to produce a harmonious result in mass and proportion.

I also regard as of great value the competitions held annually under the aegis of the R.I.B.A. because they impel the student to exercise his imagination in a definite and decisive way in solving a given problem, such as in the Soane, Tite, Victory, and Rome Scholarship in Architecture. I therefore advise you to enter as many of these competitions as possible, because you will not only realise your want of knowledge by comparison with other competitors but you will also obtain much satisfaction and experience in working on designs which involve many aspects of an architect's practice.

I look back with the greatest pleasure on the time spent as a student in the Royal Academy and in the classes of the Architectural Association and on the competitions for which I entered. Although success is a secondary consideration, I still remember the satisfaction I myself experienced in gaining the Architectural Association Medal for Design, the Tite Medal of Merit, and the Essay Prize. In my student days the Royal Academy school was regarded as an institution which every young architect should try to enter, and I shall never forget the instructive time spent on preparing designs with R. Pléné Spiers, then master of the school, and with Royal Academicians, including Norman Shaw, Arthur Blomfield, Sir Ernest George, Alfred Waterhouse, J. L. Pearson and John Belcher, for it was indeed a great privilege to have the helpful and instructive criticisms of men of such experience.

In working through courses in design and



construction and in acquiring a knowledge of the nature of materials, of modern sanitary science and other subjects, it must always be remembered that the knowledge thus obtained is only a means to an end, which is the erection of the building itself. That must be the object in view in laying down any scheme of architectural education, and it therefore follows that the student must get practical experience apart from what he can learn at the drawing board and from books.

The various schools of architecture arrange periodical visits to buildings in process of construction, but I would advise any student to act as a clerk or assistant clerk of works so as to see the building grow from day to day, to learn about the behaviour of different materials and thus to gain a practical insight in overcoming the difficulties in the erection of buildings. The knowledge which you can obtain from a clerk of works or competent foreman will be of the greatest assistance to you in the carrying out of your own designs.

An architect has to know all about building methods which he has to superintend, and in order to supply this knowledge my late brother, Major H. Phillips Fletcher, arranged that the Instructors in the various building crafts at the Trades Training School of the Carpenters' Company should give practical demonstrations in craftsmanship to London University students, and I am frequently hearing of the appreciation of this method of obtaining practical knowledge.

All training should have as its object the turning out of an "all-round man," for no one knows what class of work he will have to carry out in after life, and it may be totally different from his expectations. I think it was the late Alfred Waterhouse, R.A., who told me that he had always hoped to have a church practice, for he was interested in Ecclesiastical Art, but that, by force of circumstances, his practice principally consisted in designing office buildings, Town Halls and Assize Courts!

Architects are students always, but when the so-called studentship days are concluding, and before starting in practice, it is well to enter other architects' offices in order to get additional experience and a wider outlook. I myself entered three offices of very different character after my pupilage days were over, and have never regretted the time so spent.

In regard to design in modern buildings, do not

be led astray into thinking that you are better able to produce something original without a study of the best examples of what has gone before. Believe me, there is real value in tradition, and the architect who is thoroughly conversant with it is more likely to exercise originality in his designs than one who has not been trained in the tradition of the past. Architecture, which is lithic history, much resembles language which has come down the centuries with changes in each age. Just as no lasting benefit can come from a newly invented language, such as Volapuk or Esperanto, for we still speak the language of Shakespeare, though with alterations of phrase, so it is inconceivable that modern design justifies originality involving the invention of new forms divorced from tradition. Forced originality is not to be encouraged, for natural originality should result from new conditions and new materials. As Pope has put it:

"In Arts, as Fashions, the same rule will hold  
Alike fantastic if too new or old."

It will be admitted that nowhere perhaps is there more originality than in American Architecture, and yet many of the most prominent American architects have been trained at the *Ecole des Beaux-Arts* in Paris, where tradition is most rigidly adhered to in the curriculum.

Our first concern after the choice of site is for right planning and effective elevation with correct proportions, but we must not regard detail as of little consequence, for it is essential to success. In domestic work you must consider with an æsthetic appreciation of appropriateness door furniture, window fastenings, mantelpieces, electric fittings, cornices and mouldings; if there is to be harmony in the interior all these must be controlled by the scale and style of the house, simple in type for a cottage and on a grander scale for a mansion. The Brothers Adam owed the success of their delightful houses to the happy combination of general design and decoration, which included fittings and even furniture.

I would remind you that it has been said that genius is the capacity for taking infinite pains, and it is only by hard work that you can hope to succeed.

We must not forget that the competition system now in general vogue in this country opens up avenues of opportunity, which I believe do not exist in any other profession, while the good work being carried out in the British Dominions beyond the



seas gives further scope for the young architect. The future lies before you and beckons you on to fresh effort and ultimate success. Presidents come and go, students come and go, but the art of architecture goes on from generation to generation, with firm roots in the past, a living growth in the present, and ready to put forth fresh young leaves

in the future, ever growing, ever changing, and yet ever the same.

In conclusion, in wishing you all every possible success in your careers, I would exhort you to give free rein to enthusiasm, cultivate imagination, and practise industry, all three of which are essential to a successful career in architecture.

## Vote of Thanks to the President

The Rt. Hon. VISCOUNT BURNHAM, G.C.M.G., C.H. [*Hon. F.*], in moving the vote of thanks to the President for his Address, said: It is my pleasant duty to move a vote of thanks to your President, Sir Banister Fletcher, for his admirable and appropriate address. I admired nothing more in his address than the deft and ingenious combination of the practical with the ideal. That strikes me as eminently suited to the subject of architecture, which, as we all know, is the basic art of our civilisation. We talk, no doubt, of the styles of architecture which best harmonise with the mysteries of religion, but we must not forget that, in the satirist's phrase,

"To talk of architecture is but a joke."

Until you build a chimney that won't smoke. That struck me as being the spirit of the President's address; he went into the practical side of your art in a way that I am quite sure is helpful to all the students who are here this evening.

About two years ago it was my privilege to be conducted over the New Delhi by my old friend, who is one of the most distinguished members of your profession, Sir Edwin Lutyens. He and Sir Herbert Baker are the two architects who are jointly responsible for the greatest experiment and the greatest opportunity in the art of architecture which has been given in our modern day. When we realise that at one time they had 30,000 workmen at their command, we see that since the Pharaohs there have been no architects in so splendid a position. I do not say that everything is perfect in what has been evolved, but at least we know that at New Delhi they have had the advice and the work of two of the most eminent architects of the time. Speaking of Sir Herbert Baker, I do not forget, from what I have seen in South Africa, that there is no man who has done so much for architecture in the Dominions beyond the seas as he has. So far as New Delhi is concerned, perhaps in some cases the practical has been sacrificed to the ideal; but at any rate the Viceroys who have already begun to live in their new Palace will have to adapt it to the commonplace needs of everyday life, even amid the glories of the Moguls.

Sir WILLIAM LLEWELLYN, K.C.V.O., P.R.A., in seconding the vote of thanks, said: It seems

to me that only a few days ago I stood here seconding a vote of thanks to the President for his inaugural address, and I thought that that occasion would have excluded me from further occupying this position to perform an equally pleasant duty to-night. A quaint writer of the seventeenth century said that the end of architecture is to build well, and that well-building had three conditions: commodity, firmness, delight. That, of course, you can construe into successful planning and putting up a building that will not fall down. And delight, of course, had reference to the artistic side of the building. Your President has dealt with these conditions extensively in his address to students. I would stress the need of paying attention to the third condition, delight, because it is that condition which distinguishes the architect as compared with the ordinary builder. Architecture is not only a science but an art, and the great architect is, at one and the same time, a good builder and a good artist. A knowledge of the scientific side can be acquired by most students of ordinary intelligence, but the artistic side requires great and careful development. In developing the artistic side, as your President has told you, a comprehensive knowledge of the past cannot be dispensed with, for it teaches us, among other things, that there is no finality in art, and that the progressive changes which have taken place have been perfectly normal and rational changes due to the demands of the time. It also demonstrates that in all these changes one beauty is lost but others are gained. And so I hope, in all the changes that are taking place to-day, that this point will not be lost sight of, and that beauty will be sought for, even though it may be difficult to find in some types of modern buildings that are being erected. Your President has given you sound advice. He who would get on in life must take advantage of the knowledge and the experience of others. And this I say to you: Take Sir Banister's advice and that of all your seniors; use their knowledge and experience, and so save much time, for self-sufficiency may lead to blundering and disaster.

The HON. SECRETARY (Mr. Sydney D. Kitson [*F.*]): We are fortunate in having with us this evening the Rt. Hon. George Lansbury, His Majesty's



Chief Commissioner of Works, and, though he has not been warned, I do hope I may induce him to say a word in support of this vote of thanks.

The Rt. Hon. GEORGE LANSBURY, M.P. (H.M. First Commissioner of Works): I want to thank those who asked me to come here, and I want to thank your President for giving me the opportunity of listening to his address; and I hope that, like all the younger students here—and I am the youngest in this particular subject—I will benefit by it, for the good of the Department which I happen to represent here this evening.

I should like to say in addition that I hope in all discussions about architecture everyone will remember that it is very fine to build magnificent buildings to pray in, and magnificent places to work in, but it is an infinitely better thing to build streets that are a beauty to look at, and homes for the people which are beautiful to live in. That is my idea of true

architecture. Though I am a downright Socialist I am a great believer in tradition, and I am a great believer in old buildings. There are only two or three things I have had to do with architecturally in a direct way. I assisted in preserving some good old almshouses in the Mile End Road, and Bow Church, which stands in the middle of the road. I had to do with the building of a school which, I think, is one of the best Poor-law schools which have been built in this country. And I had something to do with helping to build what I am sure is a good specimen of architecture—Whitechapel Church in Whitechapel Road. I am rather proud of these things, but I am not proud of a good deal of the architecture of the new buildings which are being put up for people to live in. I hope the young architects will give us something better in the future.

The HON. SECRETARY then put the vote of thanks, which was carried by acclamation.

## Review of the R.I.B.A. Prizes and Studentships, 1930

BY W. H. ANSELL [F.].

[A Paper read before the Royal Institute of British Architects on Monday, 20 January 1930.]

THE PRESIDENT, SIR BANISTER FLETCHER, F.S.A., IN THE CHAIR.

NO one regrets more than I the unfortunate illness which prevented Mr. de Soissons from standing in my place to-night. We tender him our sympathetic murmurs, but, with the task still in front of me, I cannot help feeling that, for him, the illness was not without its compensations. It is true that I have promised to perform this duty in 1931; but a duty a year ahead is no duty at all. To be suddenly confronted with it, to have a whole year of one's life wiped out by a stroke of the MacAlisterian pen is most disturbing—I understand, now, the clamour for the twelve days as I never understood before.

The essential equipment of the "Compleat Critick" is an unassailable sense of superiority to the rest of mankind. This, I fear, I have outgrown. I stand, therefore, merely as one of the elder brethren, still, I trust, a student myself, and, as such, entitled to the freedom of comment which all students claim.

In the pamphlet published by this Institute there is a diagram of the ladder of prizes, the top of which is, by the way, shown at the bottom.

The Tite prize is intended for the man who has reached the intermediate stage: following this for the Associates or an equivalent certified attainment, come, in alternate years, the Soane Medallion or the Victory Scholarship. The topmost rung of the ladder is the Rome Scholarship.

The winner of the Tite is admitted direct to the final stage of the Soane Medallion. He, also, with those receiving Honourable Mentions, is exempted from the design portion of the R.I.B.A. final examination. Any competitor in the final competition for the Tite is exempted from at least one of the final testimonies of study.

Similarly, the link between the Soane and the Rome

prize is provided by the admission of the Soane winner direct to the final competition for the Rome Scholarship.

There is, therefore, even for the also-rans, some reward for the time and trouble taken in completing a design in these competitions.

The remaining prizes definitely concerned with design are the Owen Jones studentship for the study of colour and decoration, the Grissell, a constructional subject involving design, and the Alfred Bosson Travelling Studentship for the study of commercial architecture in America.

The Saxon Snell prize for the encouragement of the study of hospital design and construction, and the Arthur Cates prize may also be in part concerned with design. The scholarships not involving original design are the venerable and ever-popular Pugin studentship, the Measured Drawings prize, the Hunt Bursary for the study of Town Planning, the Neale Bursary for research in the field of historical architecture. The silver medal for an essay on a subject of architectural interest gives the literary man an opportunity of taking his part in what is a catholic and comprehensive scheme of prizes. Were the Board of Architectural Education to plan anew an ideal scheme of studentships it would not be so very different from that which has come about, almost casually, by the generosity of the Tites and Soanes, the Grissells, Snells and Bossoms.

So much for the scheme. The hunt is up. What has been the response?

Beginning with some of the smaller prizes—the Arthur Cates prize was not awarded. A town-planning subject was set, but the design of the one competitor who entered created more difficulties than it solved.

The same competitor, Mr. Daniel, was the only entrant



for the Hunt Bursary, and, in this, he was successful with a selection of drawings of housing schemes and layouts.

The Neale Bursary was won by Mr. Cormack, who is, perhaps, a little lucky. The intention of this studentship has not been fully understood. It is by no means to be considered as a second Measured Drawings prize. There must be evidence of research which the mere measuring and plotting of a building does not necessarily give. If such measuring threw new light on historical methods of construction, if it assisted the tracing of external influences on a national art, if it explained schools of craftsmanship, well and good; but such excellent drawings as those of Dorchester House are fitted for the Measured Drawings prize rather than for the Neale Bursary. If their author is wise he will add other drawings to them and resubmit them for the former prize. Mr. Cormack sends many sketches and measured drawings of Spanish ironwork which were held to approach more nearly the founder's intention, though, had there been a short thesis in addition, the issue would have been sooner placed beyond doubt.

That the Saxon Snell prize of £100 has been awarded to a competitor who had made three previous attempts is a proof that industry is sometimes rewarded. His was the only entry. That there is so little competition is matter for regret. The hospital of to-day provides one of the finest opportunities for adventurous and original planning, for the use of new materials, new methods of construction, new systems of heating, for modern expression in design based on the very latest thought in medical practice.

Yet this vital scientific subject and this valuable prize leave our modern student cold.

I suggest that evidence of interest in this type of building, as shown in original design, be accepted as indicating the kind of student most likely to benefit by the Saxon Snell prize, even though "special practical knowledge" (quoting from the conditions) be not obvious.

The Measured Drawings prize of £75 attracted only two entrants. The value of this prize is the same as the Pugin, which alternates with it in succeeding years, yet, while the Pugin seldom fails to attract a good entry, the Measured Drawings prize is to be had almost for the asking. This is not to belittle the achievement of "Parsnip" (Miss Sadie Speight) in winning it, for her delightful drawings might well have been successful had the competition been much stronger. She draws the marble screen at Greenwich, the indication of the material being, perhaps, a little lacking, and the Monte di Peta at Brescia. I have doubts as to the wisdom of choice shown in the Italian subject, but, for the business-like notes made on the spot and the beauty of her detail drawing, nothing but admiration.

"Cym" sends drawings of Castle Howard which would have been improved by a general plan—the notes are rather weak and the  $\frac{1}{4}$ -inch detail drawing indeterminate.

Four students submitted drawings for the Owen Jones Studentship and £100. The subject was a Civic Hall set in a park. Competitors were asked for a scheme showing the interior form and decoration only. "Chameleon" (Miss Kathleen Anne Veitch) wins with a scheme that, in colour, carries sobriety almost to the point of gloom, the wall decoration is restless in pattern and its change to unsuitable landscape in the end recesses too sudden and

unexplained. The signs of the Zodiac over the windows are amusingly suggested and might well have been made into focal points of strong pure colour.

The merit of this design is in the unity of its colour scheme and the quiet sensitive variety introduced into the ceiling; yet I cannot but feel that any self-respecting chameleon would consider itself unworthy of the reputation of its species could it not change into many more cheerful colour schemes than this.

That there are worse things than too low a key is shown by "Lads," whose canopics to windows and end of room are overpoweringly red.

"Lampadaire's" drawings are unfinished, "Lilith's" are clear, without hesitancy, but also, alas, without very much inspiration; the glazing is rightly comprehended as an integral part of the design and the lettering on the drawings is interesting in itself.

The Grissell prize has not been awarded. The subject was a Concert Pavilion on a pier. There were five entries, but none of the designs reached a standard sufficiently high to justify the award of the prize.

"Steinway" was the best sent in. His plan and general idea of scheme were sound, but his material and elevational treatment were unsuitable. "Zoh" was placed next by the jury largely on his choice of material and type of construction.

Of the other designs sent in it were, perhaps, kinder to say nothing, yet I must commend the determination which can carry through a set of constructional drawings to a finish.

The Alfred Bosson Travelling Studentship and £250 has not been awarded. There were only two competitors, one from the Schools and one from the outer world. The subject was a departmental store on an island site of about 300 feet by 160 feet. The departments needed were stated but no detailed areas were given.

In addition to the drawings a written statement was required giving in detail the cost of the building with all professional, legal and architectural charges, and a further statement of outgoings under six headings.

Altogether a formidable proposition and one not to be lightly undertaken.

While the jury did not consider either of the designs of sufficient merit to deserve the Studentship and the £250, yet each of the competitors has been awarded a Silver Medal. "Gurrie" (Mr. Harold Bertram Rowe) had, on the whole, the better plan and "Truro" (Mr. Edward Forster) much the better elevation.

"Gurrie's" rooms are too high, a ground floor of 21 feet with a mezzanine is a mistake, and both competitors fail in the allocation of room to the various departments.

"Gurrie" scores by the introduction of a second basement but he devotes insufficient space to stock rooms and his arrangements as to receiving, packing and despatch are defective though far better than "Truro's."

"Gurrie" cramps his groceries, hardware, electrical and fruit and flowers. "Truro" provides the same space for hair-dressing as he does for furniture, and less for furniture than for books, stationery and library. "Gurrie" locates ladies' wear on three floors and both devote too much space to the restaurant. Valuable selling space on principal floors is wastefully used by "Truro" for counting-



house, and too generous and unnecessary toilet accommodation on each floor level.

Neither competitor places his lifts very well. "Gurrie's" are too close to the main entrance and "Truro's" batteries of only two in one position are too small and widely separated.

"Truro's" failure to provide direct exits from his main staircases to the street would be questioned by the L.C.C.

"Truro" sets back his shop windows behind the frontage line, thus permitting window gazers to follow their hobby under cover and without obstructing the pavement traffic. The piers on his elevation are far wider than on his plan.

"Truro's" financial statement has one interesting item:—

Architect's fees, 6 per cent. on £54,000	£32,400
Expenses	600
Total	£33,000

The quantity surveyor is similarly generously dealt with, he is stated as receiving £13,500 on £54,000. I imagine a nought must have fallen out from the cost of the building somewhere.

"Gurrie's" elevation is badly conceived.

It would seem that the London student "Truro" has not made sufficient use of the opportunities available for the study of great stores at first hand. Had he explained the purpose of his enquiries the heads of several London firms would gladly have given him facilities for inspection and investigation.

For the R.I.B.A. Essay Prize, six essays were sent in. The prize has been awarded to "Research," who turns out to be none other than Mr. R. A. Duncan.

"Polly" writes on "The Development of the Bridge in England." He assembles many interesting photographs, but does not marshal his material well nor bring his comments upon it into essay form.

That I consider the weakness of "Milesian," "A.B.C." and "Much," who send what might be very good lectures with lantern illustrations, but which lack the literary style the true essay character demands.

"Ebor" (Mr. William Arthur Eden) receives a Honourable Mention for a thoughtful essay on John Carr, of York. While being a biography it yet is more than that, reviewing the influence of the times on the man as well as of the man on his times.

He gives an interesting description of the York of Carr's day—when Laurence Sterne was prebendary there and writing *Tristram Shandy*.

"Research," however, wins the medal with an essay on "Science and the Art of Architecture," an introduction to the study of the causes of the disturbance of tradition. This conforms much more to the accepted idea of the essay. Section I—Concerning Tradition. Section II—Pure Science and Philosophy. Section III—Applied Science and Invention. Section IV—Architecture the Social Art. The literary quality is reasonably restrained, though I could wish that "Research" would extend his researches and find an alternative to the word "concept," of which he seems unusually fond.

I consider this a good award, well deserved.

The Tite prize has been awarded to "Corio" (Mr. Arthur Charles Collins) an Australian architect; 186 can-

didates entered for the preliminary competition, and, of these, only 21 succeeded in winning a place in the final. Two of these fell by the way. Nineteen finished their designs and sent them in. Whatever may be said in criticism of their work it must be recognised that their presence is in itself an indication of good work done in a very fierce competition.

The Tite subject this year is a delightful and inspiring one. A small monastery set on the hills above a little Italian town. The road from the town encircles the hill and comes on the site from the north; the ground slopes to the south, fairly gently at first, then drops sharply steep by steep with terraces of olives and vines. The buildings will sit on the easier slope, and perhaps, a spur may jut out for a view of the tiled roofs far below.

Twenty monks and a Prior—no great abbey this, merely a Priory. The separate cells suggest the Carthusian order, the day room and library indicate a somewhat human and liberal community, yet a religious order, with well-defined duties, vowed to poverty, to chastity, to obedience.

The approach from the road is to be arranged with some formality as a public way to the monastery. What better for this than a little avenue of cypress trees from road to gatehouse?

Let us, as students, attempt to visualise the problem—before setting pencil to paper.

The whole precinct must convey a sense of enclosure. There must be a curia, an outer court with a gatehouse of some importance. The two guest rooms and their day-room will adjoin this, for visitors must not disturb the daily life of the cloister. On the eastern side of the curia is the west door of the church, for the laity are not excluded from the nave.

The kitchen would be well placed between curia and cloister, for the kitchen deals with the outer world as well as with the inner monk. The prior's lodging should also be placed with one eye on the outer and one on the inner court.

The curia may surely have its arcaded walk all round, for it is better to walk further in the shade like a Christian than to cross the square in the blazing sun like a mad Englishman.

A vaulted passage, cool and pale, with reflected lights on whitewashed walls, leads through to the cloister which is placed to the south of the church. From the east and west cloister walks doorways lead into the church. They would be used in the Sunday procession before High Mass; for there must be no undignified scrambling through the sacristy to get into the church.

The cells will open on to the round arched cloister walk. The refectory, a longish narrow room with high windows, will show itself clearly over the low cloister roof.

The problem is ready to plan itself if only we will allow it so to do. The church must have its choir for the recitation of the canonical hours—it must have several altars in addition to the high altar. A screen must shut off the west end, but this portion, too, should have its own altar.

Outside the apse of the church will be placed the tiny graveyard—the final expression of the spirit of peace that pervades the whole monastery.



The buildings should be of the simplest type—white or red walls with the flattish roll tile roofs of Northern Italy. The church should be emphasised naturally without any forcing or exaggeration of scale, the arcades to curia and cloister simple and graceful, very little architectural detail anywhere but such as there is in church door or carved capital of the most delicate character.

That is my own conception of this subject—now for a brief detailed review of the designs.

"Bosun" plans a double bank of buildings next his church. Guests must enter cloister to reach their day-room which is here called a "lounge." The cells are not happily placed each side of a central passage which would be badly lighted. The little pointed arch opening as the main entrance is rather pathetic, and the detail lacking in knowledge of Italian examples.

"Mendicant" shows a double cloister plan which pushes the cells too far from all other departments. Guests' entrance is from outer cloister but this is also used by the brothers. The monastic rooms are too widespread and the circulation is not well thought out.

In elevation the detail is rather of a Tudor-Italian character and there appear to be sash-windows. The Italian spirit is lacking in this scheme.

"Abbot" sends a flamboyant plan shown in very heavily rendered drawings. The plan shapes have been conceived for their effect on the drawing rather than their suitability to the site, and the spaciousness of the long cloister is ruined by a covered way which crosses it.

The elevations are fortress-like, recalling Viollet le Duc and French rather than Italian spirit. A peculiarly militant order of monks these, for whom this scheme is planned.

"Pom" has one dominant cloister with a parallel church so placed that five of the cells have no light whatever. The main entrance is inadequate and the access to the church from the cloister is through the sacristy. There are too many outside covered ways. The enormous lavatory which has its entrance on the axial centre of the long cloister walk is too much emphasised.

"Pom" has got into frightful difficulties over the lighting of his church because he would not set his clerestory windows in the wall over the arcade, but must needs keep them on the outer aisle wall.

The elevations are not clearly thought out, particularly as to the roofs. When in doubt "Pom" puts a flat roof with a high parapet wall round it.

The 1/4-inch scale detail is superimposed on the 1/8th scale giving the impression that the monastery is among some ruins of gigantic scale, an amusing trick which succeeds in spoiling both elevations.

"Auntie" has far too many little courtyards—she has not realised the simplicity of the problem. The entrance to the chapel is through the sacristy, and, to make it worse, a column is cunningly placed exactly opposite the centre of the door opening.

The massing of the chapel is good, though it is, even for Italy, very badly lighted. The fortress wall over the back of the cells is unnecessary, a good example of a bad preconceived effect not in any way arising out of the problem.

The 1/4-inch detail is just about what one would expect

from some "Aunties," but is not nearly good enough for this particular one, whose 1/8th scale drawings are really quite nice.

"Bubbles" (Mr. Eric Francis Stacey) gets Honourable Mention for a straightforward scheme presented in good honest drawings rather spoiled by the black smudges which are supposed to represent trees.

The approach is too pretentious. There is no outer court. The cloister entrances to chapel are direct, giving good circulation for processions. The scale of the chapel detail is overpowering compared with the rest of the monastery. Guests are unwisely brought into the cloister.

General character of elevations rather mixed and the detail not well digested, the uncompromising Doric of the colonnade not harmonising well with the Lombardesque projections of the west front.

Altogether a good Italianate scheme—but I am sorry about those trees.

"Slacker" has been overpowered by the motto he has chosen. I may be old-fashioned, but I like a plan to show the windows, and a small part of the time spent on the paving of the courts would have sufficed for the drawing of the window openings on plan.

His cloister is difficult to get into—almost impossible, and the projecting sacristy breaks it up unpleasantly. The general massing of his buildings is rather nice, but the drawings are too faithful to the motto in detail. "Slacker" did not know what he meant by the background washes. Nor do I.

I cannot help feeling that "Slacker" can do better than this, and if he will only call himself "Bulldog" in future he should improve considerably.

"Sgraffito" will be symmetrical though the heavens fall. When one sees the horrific Guido Reni type of landscape in which his monastery is set, one can only attribute to a direct and miraculous interposition of Providence the discovery of a piece of ground which allowed an absolutely symmetrical plan in so turbulent a country. The scheme resembles the ordinary secondary school competition winner, with the church (axially north and south) as the assembly hall. Everything is duplicated and balanced, there are two sacristies, even the Prior is severed in twain, half of him being on one side of the church and half on the other.

The guest room is larger than the monastic refectory, while that room and the library lose character and dignity by the unfortunate placing of the windows. The section shows that the 30 feet by 8 feet cell is 17 feet high, the window being 12 feet from the floor.

The elevations have good Italian character and the drawings are carried through with self-respect.

"Blotto" is another victim of the passion for symmetry. He has no well-defined entrance, no outer court, no sense of enclosure, the size and importance of the sacristy is exaggerated. The 1/4-inch detail is over concerned with road tiles to the detriment of other more important matters, but the drawings are clean and workmanlike.

"Selande" has an outer court, but the entrance from this to the cloister is almost impossible. The general lay-out of curia, church, and cloister has much to commend it, but the church plan is too big and grandiose for the monastery.



The elevations have not received enough thought and are in consequence lacking in interest.

"Pax" at any rate had a clearly conceived idea. He placed his church on the north side of a single quadrangle round which all his buildings are grouped, the cells being on the first floor, a too well-balanced plan for which he has sacrificed almost every convenience. His guests are spread untidily all over the monastery, the kitchen is on the wrong side of the cloister and has no outer approach.



ELEVATIONS

delightfully drawn, with the exception, again, of the pseudo trees,



HALF-INCH DETAIL

DESIGN FOR A MONASTERY. By Harry Banister  
(Awarded a Certificate of Honourable Mention, the Tite Prize)

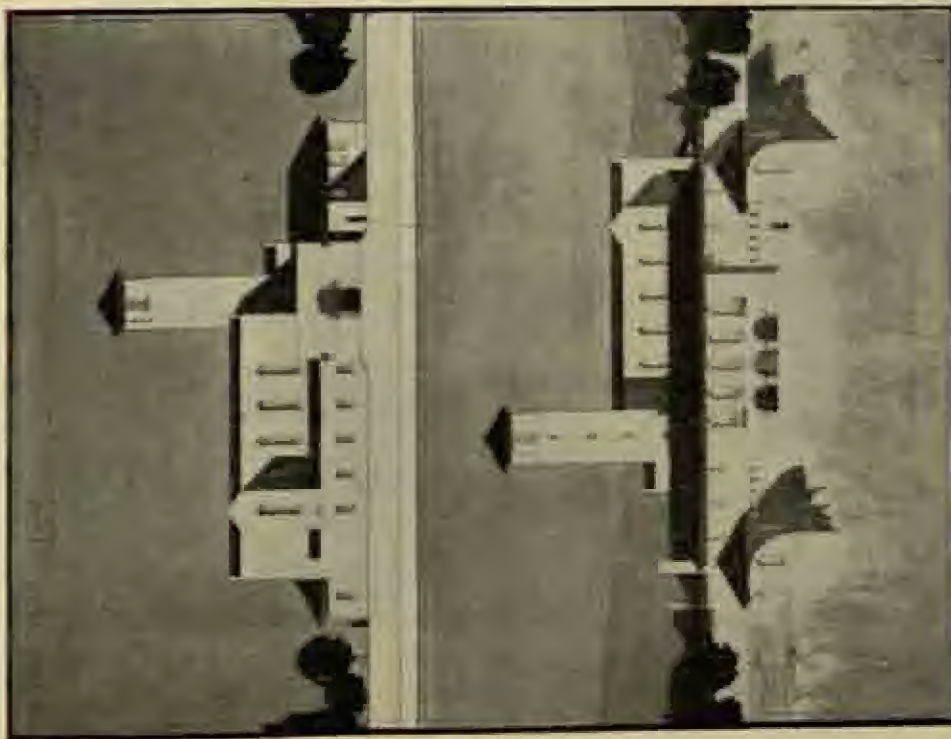
The entrance is poor, but the inner circulation is good. The brick treatment of the exterior has unity, and there is appreciation of the quality of the material.

"Fute" (Mr. Harry Banister) is more Italian than any yet noted and well deserves his Honourable Mention for the charm and simplicity of his elevations, which are

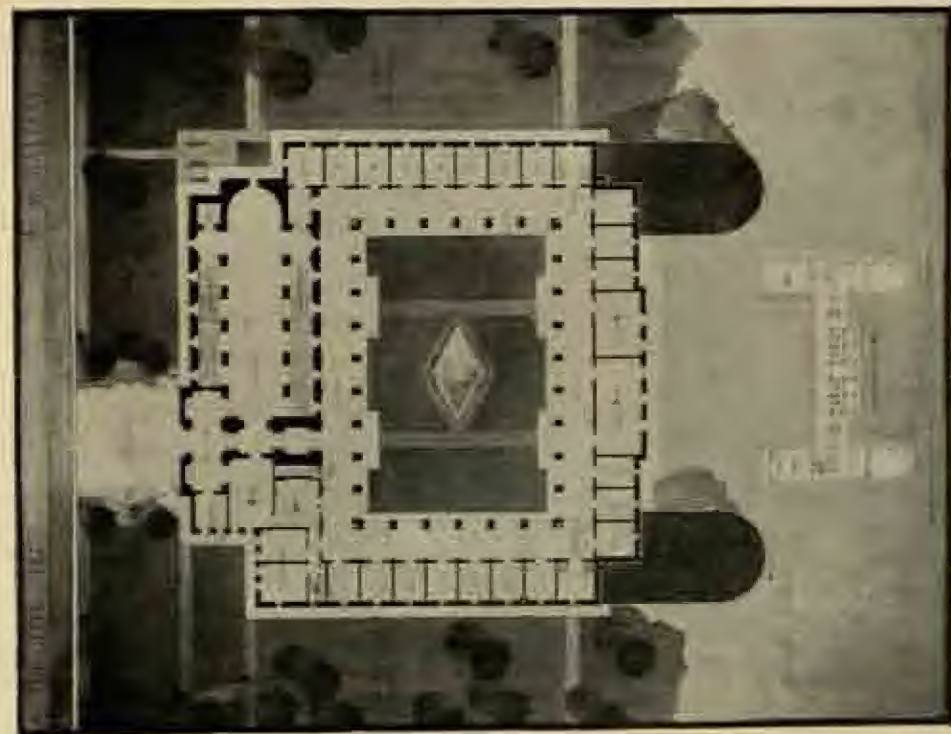
There is a gigantic curia surrounded by an arcade. The church is well placed, and there is the thoughtful provision for a night stair for direct access to the church from the upper cells. The cloister needs more definite enclosure and the outer portion more compact planning.

"Quickstick" has missed the monastic spirit. He





ELEVATIONS



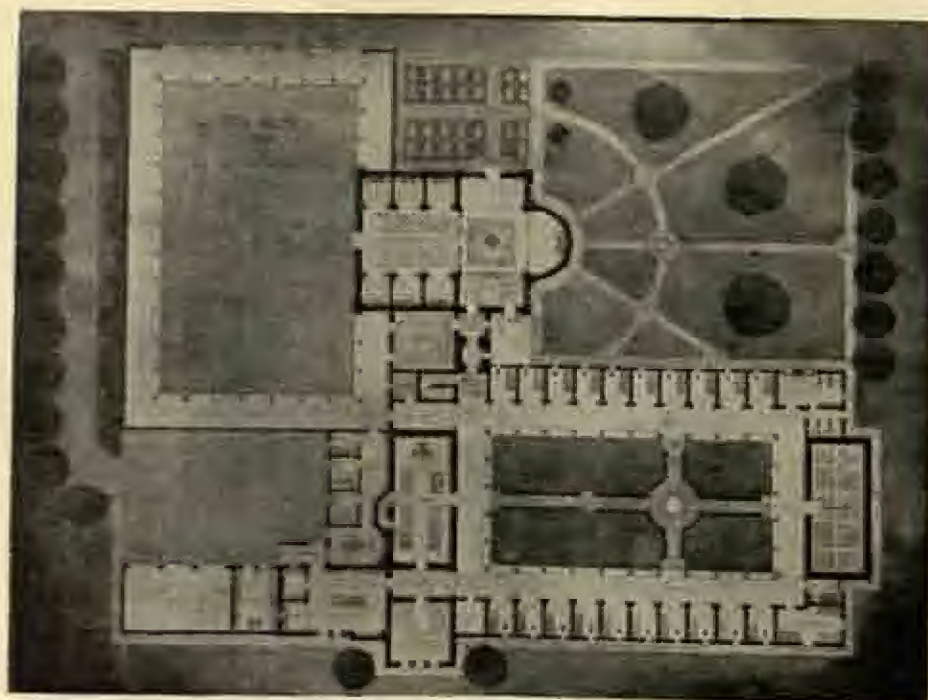
PLAN

DESIGNED FOR A MONASTERY. By ERIC FRANK STURLING.  
(Awarded a Certificate of Honourable Mention, the Trianon Prize.)





ELEVATIONS



PLAN

DESIGN FOR A MONASTERY. By Arthur Charles Collins  
(Awarded the Tite Prize)



shows an enormous single court with no direct access from the road, the scale of the chapel is too large, and there is no access from the cloister except through the sacristy. A little more imagination and freedom would be better.

"Shandy" submits a rather sprawling plan with some good points in it. The jutting out of the refectory to the road and the placing of the kitchen entrance, together destroy the sense of enclosure.

The circulation from cloister to chapel is distinctly bad; the little garden to each cell might be a pleasant feature. The projection of the library over the steeper slope agrees with my own vision. Admirable, "Shandy."

The church, like others in the competition, is based on the Badia at Piesole and is none the worse for that, but it is rather spoiled by the square-headed windows. The cloister is well proportioned and the drawings nicely finished.

"Bill" likes courtyards. He has five of them, but they only confuse instead of simplify his plan.

The infirmary should not be in the outer court. The prior is cut off from the cloister. The monks living in the upper cells have difficulty in descending to the chapel. The elevations have little cohesion, as might be expected from the plan and the Italian detail is not well comprehended.

"Ebenezer" (Mr. Eric Frank Starling) gets Honourable Mention for a symmetrical scheme of much interest. He utilises the ground slopes to advantage and designs a delightfully dramatic south elevation with its projecting bastions of refectory and library. The cloister entrance through the chapel vestibule is bad, and the poor prior has a dull room indeed.

If "Ebenezer" had better managed his everyday problems of approach to cloister and kitchen, had dared to be unsymmetrical when necessary, and had shown a nicer appreciation of Italian detail he might well have had more than a Mention. His general grouping and composition are good, and, apart from the too heavily loaded roofs, the drawings are charming.

"Retenti" has a single court plan, but one entirely lacking in repose—there are too many little groups of detached buildings which make the plan difficult and confuse the elevational treatment.

"Guidi" has an outer court but makes little use of it. He puts his cells on a lower floor and is in difficulties at once with the larger rooms overhead. The elevations are not up to the Tite standard and I fear the subject was rather outside "Guidi's" experience.

"Corio" pulls off the prize with a scheme that, on the whole, resolves its elements into well-defined groups. The possibilities of the slopes have been well realised, the placing of the various units is reasonable and would result in an eminently workable institution. More than all he has understood and has expressed in both plan and elevation the simple character and unity of the monastery as a whole. The church is in scale with the rest. In certain points improvement would be possible. The outer court is rather open to the road and more use might have been made of it for guest rooms and kitchen. The way from curia to cloister is good as is also the access to chapel.

The grouping is interesting and, in the kitchen yard and the cloister walk the detail is good.

The west front of the chapel will not do. It is dull, heavy and a little pretentious. There is a lack of unity in the scale of its parts—the west door and the pilasters adjoining for instance. The stone halls might be from the gate piers of any old house.

The elevations are in water colour ably laid on, fresh and clean in colour, but, be it said, rather commonplace and slightly vulgar. I hesitate to use the word lest it should convey more than I mean—but I think of these drawings in pleasant monochrome or slight delicate rendering and am sure that the spirit of the design would be more truly expressed by those means.

Speaking generally, the chief faults in the Tite designs arise from three main causes.

1. The failure clearly to visualise the scheme before beginning the preliminary *esquisse*.

2. The attempt to bludgeon a preconceived and unsuitable plan on to a project which it does not fit.

3. Inadequate knowledge of Italian detail.

Yet, as a whole, the drawings are of a high standard, and worthy of the Tite competition.

The subject for the final competition of the Scane Medallion was a sports club. The conditions suggest a national sports centre near to a great city; the site is adequate for, and the club concerned with, all sports known to modern man and woman. The main buildings are to contain reception rooms and offices. Dining-rooms for members (men and women separate) a restaurant, dance hall, billiard room, card room, library and reading room, four committee rooms, 100 bedrooms, and all the service accommodation contingent on these.

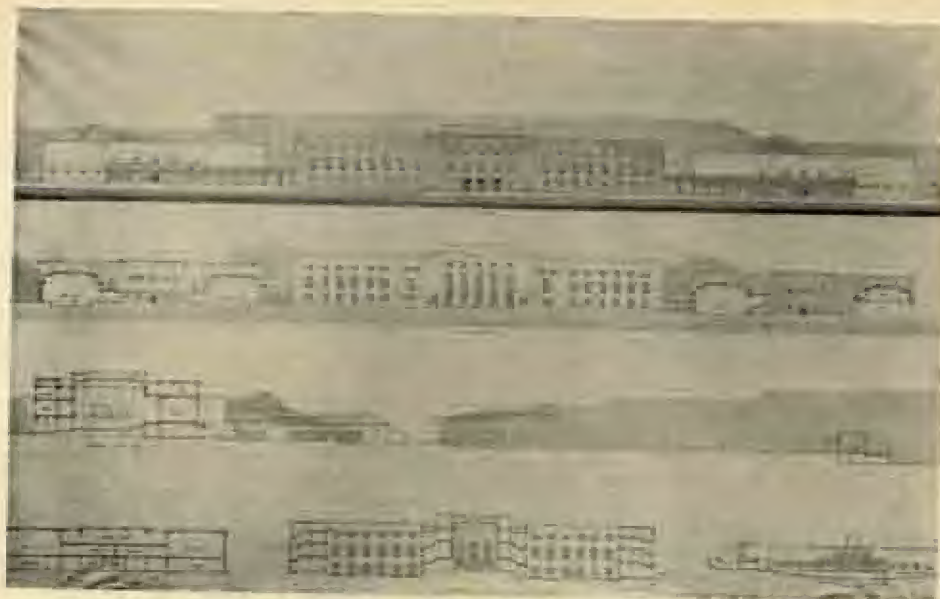
The sports group is to provide swimming baths separate for men and women, each bath to be 111 feet long, gymnasiums, with fencing and boxing quarters adjacent. Squash racquets courts—accommodation for the golf club—a rifle range.

There is to be a covered garage for 50 cars, and an open air swimming bath 220 yards long (to 1/4th scale.) In the preliminary competition, 56 candidates took part—12 only were successful in passing through to the final. To these were added 11 others who had won their place by other successes, but only 13 designs were submitted. It would be interesting to know whether 12 of the 13 were those who won through in this year's preliminary competition.

The site presenting no difficulties, the problem resolved itself as a plan into the realisation of the best grouping of the various departments. The social rooms must be in the main building—easy of access from the road, with pleasant outlook over gardens—it is useless to make of these social rooms a series of pavilions overlooking tennis courts or sports grounds. These will need their own arrangements for spectators, while remembering that this is primarily a club for players.

The sports buildings are not easy to place. The swimming baths must come together, though some competitors have placed them far apart. The gymnasium group should, I think, be near the baths. The conditions demand that the fencing and boxing quarters "be adjacent to the gymnasium." I begin to sympathise with those students who have planned two great units, the social and the sport groups, extended in line.





ELEVATIONS



PLAN

Design FOR A SPORTS CLUB. By John Leslie Martin  
(Awarded the Soane Medallion)



"Noah" (Mr. John Leslie Martin), the winner, however, plumps for a central social building with double wings projecting to the south. His layout is well organised and the scheme has that suggestion of the inevitable that a good plan on paper so often conveys. He divides the sports buildings into a bathing group and a games group, the gymnasiums being on the 1st floor of the baths group. This division has some disadvantages, but it permits of a very staid orderly plan so simple as to suggest that the problem was quite an easy one. The detail planning generally is reasonable—though I question the square shape for a gymnasium. The circulation is good—too good I fear for the golfer who seeks to spend the half-crown and finds he must walk 120 yards from the locker room to the nearest bar.

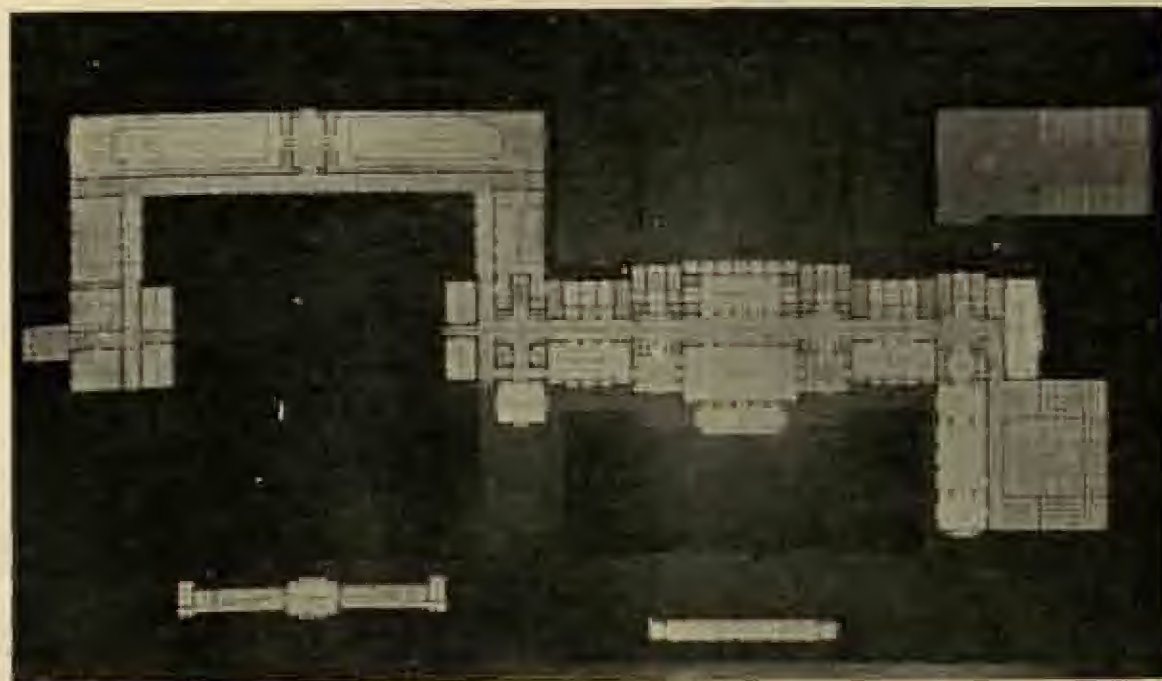
jutting out with no circulation whatever are inconsiderate to the sleepers in case of fire.

The sports group is compactly designed, though the courtyard between the baths would appear to be of very little use.

This is apparently a reinforced concrete scheme, rather arid and empty of interest. There is little evidence of the mastery of the designer in the disposition of the masses of his building.

"Henri" has a symmetrical plan. The dining-rooms in the central portion overlooking the garden would be very pleasant. The kitchen is in the basement and badly lighted. The drawing-room is tortured in shape, and is also badly lighted.

"Henri" rather falls to pieces in the layout of his



DESIGN FOR A SPORTS CLUB. PLAN. By Sidney Edward Thomas Cusdin  
(Awarded a Certificate of Honourable Mention, the Soane Medallion)

"Noah's" elevational treatment—brick walls with a horizontal stone capping, and flat roofs, is all very good and sound, but rather too sedate. One would have welcomed a little more adventure. After all, a sports club should be rather a jolly place and youth's the season made for joys (or used to be).

"Henbane" makes us realise that the subject was not so very simple after all. He is a two unit man. His main social building is complicated and badly needs clarifying while the upper floors waste much unnecessary landing space. The placing of the women's dining-room on the 1st floor is a strain on the service. The placing of the bathrooms is bad; the long wings of bedrooms

sports buildings. The men's and women's baths are widely separated and there are little sports buildings dotted about everywhere. The south aspect is closed by a mean and inadequate golf club house. I judge that this, too, is a ferro-concrete building with all the fun left out. The 1/2-inch detail is unworthy of the other drawings—it is obviously a lost half-hour effort.

"Trieb" (Mr. Sidney Edward Thomas Cusdin) gets a Mention for a good conception. The sports and baths group is well arranged round an open court with south aspect—some great south windows to the baths would have been pleasant. In the main block the placing of the kitchen to the south-east is rather wilful.



The balance of the main block and the entrance would be improved by putting the kitchens to the north-east. "Trieb's" upper floor planning is good, on American lines as regards placing of bathrooms.

Again a ferro-concrete scheme, squarely massed, horizontal lines, no larks, inadequate  $\frac{1}{2}$ -inch detail.

"Cwm" sets all his buildings in a long line—the gymnasium block only being separate and at right angles. In the *esquisse* the social group was fairly simple: in the final scheme it is complicated by too many courts and wasteful double corridors.

The swimming baths are side by side with an interminable corridor between: I fear there would be congestion in the dressing-box passages and the openings from these to the baths.

The planning of the upper floors is amusing, but the bathrooms cannot be approved, and the planning of the kitchen, which is quite reasonably placed on the first floor over the restaurant and dining-room, is remarkable.

Again a ferro-concrete scheme with a little more interest, but only a hairbreadth escape from ponderousness. The  $\frac{1}{2}$ -inch detail is a last half-minute effort.

"Polo" was judged *hors concours* for departure from *esquisse*, and there, I think, he has been distinctly unlucky. Others appear to have departed almost as much without being penalised. "Polo" would not in any case have won the prize, but he should have been spared the sight of those horrid words above his drawings.

He has a central main building with two garages projecting to the north—the sports group is to the west and the golf house to the east. The latter is, at any rate, an improvement on most of the golf pavilions shown, for they would result in the demand for the instant resignation of any committee daring to build them.

The staff bedrooms are badly placed over the garages and surrounding the washing space. No caddies would ever be available for their proper function, as I notice that their room is in a kind of front row centre court position overlooking the tennis courts.

"Dome" sends a rather grandiose layout with strained and false symmetry resulting in bad planning in detail. His committee rooms are widely strewn about the central building.

The gymnasium and the appurtenances thereof are separated from the swimming baths—a really serious fault.

This, too, is a concrete scheme which, more perhaps than any other, realises the possibilities of the material and the interest that may legitimately be introduced by its intelligent use. Here, at last, is a serious  $\frac{1}{2}$ -inch scale drawing—the best so far.

"Alfy's" plan is prodigal of space. His is a millionaire's club and his father must sell drawing paper. I was interested to note the number of vestibules and halls on his ground floor plan—portico, lobby, entrance hall; then merely hall, two inner halls, three ante halls and a lounge hall. Yet is this wealth of ante-room not unduly planned. There are delightful suggestions of vistas, of varying shapes. There is more vitality, more adventure in the plan of the main building than in almost any of the designs.

"Alfy" is a long liner—a very long liner.

His baths plan—which includes the open-air bath in the group, has a good deal of interest. Having done all this, he then does his best to prevent anyone noticing the good points by colouring the whole—walls, floors, plans and elevations alike—with a dull flat wash.

The very lavishness of the scheme was, perhaps, its undoing, but if we examine it (difficult though that operation may be) we shall rather enjoy "Alfy's" design.

"Nox's" brick and stone building is strangely old-fashioned and a little bewildered in this company of modern young things.

The plan has its component parts wrongly placed. To get to the main building one passes the boxing, the fencing, the gym, the baths: these need reversing. The baths are separated and the open-air bath far distant.

"Possibly" sends a symmetrical layout with centre building having baths on one side, gyms and garage on the other. The open-air bath is very well placed, but the separation of baths and gymnasium is a great mistake.

"Possibly's" elevations are delightfully drawn and the terrace front a genuine expression of the purpose of the building. The design is lean and fit, gay, and light-hearted. The north elevation is too uncompromising in its starkness, but the set as a whole is a very creditable production.

"Don" is another *hors concours*, with more reason. In any case his idea of a large number of isolated buildings needing a whole forest of signposts to direct the new member is on the wrong lines and would, I fear, have put him out of the running had he not already placed himself there.

"Fly" is ponderous in both plan and elevation, and the underlying motive of his scheme is more suited to other kinds of building than to a sports club.

He, again, separates the gyms and baths and wastes a perfectly good south aspect on relentlessly solid squash court walls. For a sports club there are not enough places for casual semi-open-air lounging. His elevations, like many others, I find somewhat dull though carefully and ably drawn.

"Grass" is a believer in symmetry—central main building baths one side, gymnasium block the other—separation deprecated.

The arrangement of enclosed and open baths is good and the provision of a sun-bathing area for each bath is excellent. The duplication of kitchens in main block is extravagant; the day rooms appear to be badly lighted. The elevations finish with a high central feature, the purpose of which is obscure.

Thus "Noah," whom I heartily congratulate on his success, wins with a symmetrical plan. Yet had one of the long liners, "Trieb" or even "Alfy," taken a little more care he might have run the winner very close. The over-all standard of the draughtsmanship this year is high. How many of us would like single-handed to tackle the preparation of a set comparable with most of these?

The impression of the elevations is generally of an austerity carried almost to emptiness, due to so many being designed in a not yet fully comprehended form of construction—ferro-concrete.

It may be that the modern idea of sport is removed



from the old idea of play. Sport nowadays is a serious business and its votaries must have serious buildings for their ritual. It is clear that we must revise our former opinions of the relative characteristics of age and youth. On the one hand we find grave and reverend youth, on the other those elders, who, with the natural exuberance of age, cling to their swags like the good architectural acrobats they are. Let youth be lenient towards them, for, as R. L. S. says—

"Age may have one side, but assuredly Youth has the other. There is nothing more certain than that both are right, except perhaps that both are wrong."

Be that as it may, we are obviously safe in leaving the dignity, the austerity, the quiet serenity of English

architecture in the hands of the young, but we shall have to keep a watchful eye on them when they grow old.

THE PRESIDENT: It gives me very great pleasure to propose from the Chair a very hearty vote of thanks to Mr. Ansell for the criticism which he has delivered. Its preparation must have involved an enormous amount of labour, and I am sure that every competitor present, whether a prize winner or not, is grateful to Mr. Ansell for the skill and thoroughness with which he has brought his judgment to bear upon so many of their efforts. His criticism was tempered by delightful touches of kindly humour, and I am sure that no competitor can have felt anything but appreciation of what Mr. Ansell has given us.

## Byways. Leaves from an Architect's Notebook, by Sir Reginald Blomfield, R.A.\*

BY A. S. G. BUTLER [F.]



JAPANESE PALACE, DRESDEN

Pencil Sketch by Sir Reginald Blomfield, R.A.

(Reproduced from *Byways* by courtesy of the publisher)

Sir Reginald Blomfield has been travelling in Europe and this agreeable book is the result. I must confess at once that I enjoyed it more than any travel book I have read for a long time. To begin with, there is no sentimental nonsense about places. The author either liked

them or he did not, and his reasons for disliking them are so just, one entirely concurs. Secondly, he is always an architect—and a modern practising architect—in search of merit in buildings of any period which he discovers; and when he finds merit it is carefully and very pleasantly explained to us. Thirdly, if the buildings are merely the scene of some interesting event, that is described to us as well—and with a notable display

\**Byways. Leaves from an Architect's Notebook.* By Sir Reginald Blomfield, R.A. 8s. Lond. 1929. [John Murray.] 153.



of historical knowledge. Fourthly, as we know, Sir Reginald Blomfield writes very good English which is a pleasure to read. This is neither a collection of notes and illustrations lightly stuck together; nor is it a heavy and exhausting text-book. In fact, places are written about exactly as they should be.

The volume begins with Avignon, Orange, Arles and

Again we are told that the Maison Carrée is a vastly over-rated building, and the reasons given for this assertion are very convincing. One almost agrees that "these Roman temples are mere simulacra, about on the same level as revived Gothic." Chapters VI and VII are a deviation into the history of the Camisard war and the extraordinary career of Cavalier. It is



THE POOL IN THE GARDENS, NIMES  
Pencil Sketch by Sir Reginald Blomfield, R.A.  
(Reproduced from *Byways* by courtesy of the publisher)

that part of France. After a visit to Vaison and some comments on Stendhal's thoughts on Gothic, our author says, "At the risk of architectural ostracism I confess myself to finding the incessant repetition of hollows and mouldings in the arches and the assemblage of shafts like pipes in the piers of some Gothic churches just a little tedious." That gave me great pleasure. Who has not felt the same—even in York Minster—and has never dared to express the tedium in words?

difficult to understand how so much knowledge of it was collected without diligent research and the expenditure of much time. The result is a very lucid historical essay in which, I should add, the author takes a strong Protestant standpoint, but explains this attitude to a religious conflict in a footnote on his Puritan ancestry.

In Chapter VIII we are transferred to South Germany. Munich is more or less condemned as valueless.



but we are encouraged to visit the neighbourhood by the writer's notes on Schleissheim, Nymphenburg, and especially the little Amalienburg building. He finds Baroque art interesting, "not in any way as great and vital architecture, but as a reflex on the remote but still

on the Danube, and finally reach Vienna. The author's comments on this capital are typical of his excellent way of dealing with a city. He does not begin with a theory or with a bias towards a particular period, but deals with the town as a whole and its important buildings of all periods in detail. I enjoyed especially the paragraph about Fischer von Erlach, the eminent Viennese architect at the end of the seventeenth century. We are told that he was "a scholar, a mathematician, a man of considerable ability, and also a pompous old prig." Again, speaking of the very latest modern buildings in Vienna, the author says that the Austrians still seem to him to be the most artistic of all the Continental peoples.

Next we are taken to Bamberg, Pommersfelden, Banz, and that delightful place, Würzburg. Here the author is rightly enthusiastic about Tiepolo's magnificent work at the Residenz, and in describing it he corrects Mr. Osbert Sitwell. Then in Chapter XIV he puts together some valuable notes on Baroque generally—"to clear the air," we are told, I shall not attempt to compress this admirable history and judgment into a few words, but I strongly recommend it to anyone who has read seriously both Mr. Geoffrey Scott and Mr. Sitwell. After all, neither of them were or are actually architects, and this is our subject even if we are not supposed to be very cultured.

The book ends at Stockholm in a short but very pithy chapter. All the interesting buildings are touched on with apt comment, but the bulk of it is an analysis of the merits of the Law Courts and the famous Town Hall. These are compared as types, and the former wins because, as our author points out, it is more purely an instance of fine architecture and less an able exercise in and perhaps the apotheosis of the arts and crafts movement. This chapter must be read by all the architects who flock to Sweden; and not only for this analysis but as well for the final paragraphs relating Swedish architecture to the general European trend of design. I can only describe these final pages as intensely good. It is really gratifying to the profession that an architect in Sir Reginald Blomfield's position has found the time to do such a complete review of architecture to-day, illustrated as it should be by references to the past. It seems to me that *Byways* is an assumption of humility in the title; for, by exploring Baroque in its own lairs and by visiting modern Vienna and Sweden, the whole field of the two chief influences on our thought is encompassed.

## Reviews

WOODEN MONUMENTAL EFFIGIES IN ENGLAND AND WALES. By Alfred C. Fryer, Ph.D., F.S.A. 40, Lond. 1924. [Elliot Stock.] 8s. 6d.

This book is a second edition with additional matter



"AMERICA," VITTRICHHEIM GARDENS.  
Pencil Sketch by Sir Reginald Blomfield, R.A.  
(Reproduced from *Byways* by courtesy of the Publisher)

attractive civilisation of a time when art for art's sake really did mean something, in the sense that people regarded architecture not as a merely utilitarian affair, but as a stage for the pomp and pageantry, the colour and movement that they loved." After Munich we have descriptions of the great Baroque monasteries



and illustrations. The first edition was published fifteen years ago. The original was a paper read before the Society of Antiquaries in November 1908, and published in *Archæologia*. It is primarily a book for antiquarians, but it has a good deal more than antiquarian interest.

The introduction tells of the number and location of wooden effigies—of the destruction of some—of the "lively figure" carried in the funeral procession—and, most interesting to the craftsman, the method of making and decorating these beautiful figures—and winds up with some legends.

The rest of the letterpress is a detailed description of the ninety-seven effigies known to exist, supplemented by a topographical index, valuable to all who want to see them.

The sixty-seven photographic illustrations are a great feature of the book, and except to the keen antiquarian, perhaps the chief interest. They enable us all to see these interesting figures, and to compare them. The recumbent position, and the size (many are about life size) sometimes make it difficult to see them in their places. The photograph reduces and brings the whole figure within easy focus, which helps one fully to appreciate the fine qualities of design which many possess. In turning over these illustrations, fine design is the quality which is perhaps most impressive, and which will make them valuable to the practising artist.

The newer school of sculpture, with all its faults, has turned in a right direction, and is feeling its way to fine and original design, in terms of cut stone, and wood.

It has looked back too much to primitive work of other races than our own for inspiration and suggestion, but it has rediscovered the beauties of wood as a medium.

I would suggest that these English wooden effigies are full of inspiration, and are worthy of study by the earnest student who is trying to develop design in sculpture, which will express our western idea of beauty.

CHARLES SPOONER [F.].

#### NOTES ON SOME RECENT FOREIGN PERIODICALS. By Grahame B. Tubbs [A.].

A reflection of the "crash" on Wall Street may be seen in the November issue of the *Architectural Forum*, which has inserted in Part 2 a loose supplement—a kind of stop-press news—giving replies from 200 prominent manufacturers of building material to telegrams sent by the Editor asking their opinion of the immediate prospects of the building industry. As might be expected, the replies are all "hullish" in tone, in spite of the fact that there has been a considerable falling off in construction in the last few weeks. There is a good deal of "manufactured optimism" in the United States which must not be accepted quite at its face value. However, it is probable that the industry will soon begin to "pick up" and that the "break" on Wall Street will be a good thing in the end, as it will release money for building speculations which has, up to now, been more profitably employed on the Stock Exchange.

The *Architectural Forum* starts this month's issue with some coloured reproductions of vigorous and broadly painted water-colours of Spain by Carroll Hill; they are accompanied by an article recording the artist's impres-

sions of that country, which is also represented by another article, a well illustrated description of the Barcelona Exhibition, which has just closed. It was an ambitious and courageous example of Catalan patriotism and was planned on lavish lines on a steeply sloping site. Fountains and lighting were important elements of the scheme, and a fascinating feature was a reconstruction of typical Spanish villages of the past cleverly blended into a homogeneous whole. The photographs of contemporary architecture in the United States include Cret and Smith and Bassett's Hartford County Building. Part 2 has most interesting drawings and photographs of the new "Orchestra shell" for the Hollywood Bowl, which is a natural amphitheatre, used for spectacular performances and for orchestral concerts. The new shell is in the form of a series of semi-circular receding sections diminishing in size from 45 feet 6 inches to 18 feet radius, forming a kind of hemisphere to act as a sound reflector. The design, which is most successful, is by Frank Lloyd Wright, and the acoustics were worked out by Dr. Knudsen. It is stated that a whisper or the faintest tones of a violin can be heard at the back of the bowl, 550 feet away and 115 feet above the stage level. It is most ingeniously constructed so that each semi-circular section can be moved back on rails when the stage is required for other purposes.

The problems connected with the acoustics of picture theatres and their cooling in hot weather are discussed in other articles.

In the December number of *Architecture* (New York) Lewis Mumford writes on "The Beginning of Modern Form," and points out that the prototype of Le Corbusier's houses may be found in Elizabethan timber-built structures, which are the same in essence, as the weight is brought on to small supporting members and the intervening spaces are filled largely with glass. There is in this number a series of photographs of an amusing new town, Radburn, built for "the age of the motor car." The houses are planned so that the motor roads and garages are hidden from the view of the chief rooms, and the houses are approached by footpaths only. They are moderate in size, and the details, which are of Georgian type, have been standardised without an undue sense of monotony. In passing, it is interesting to hear that in New York City a five-day week was introduced in August last for the building trade. The effect on output will be watched with the greatest interest by those in the industry itself and by industrial psychologists.

The *Gazette des Beaux Arts* for December prints an important paper by M. F. de Mély called "De Kaboul au Yocann," the substance of which is that the connection has been established between the art of Central America and Kabul. The contact was established by a party of Buddhist monks and Nestorians who went to Mexico in the fifth century A.D. and left very distinct Asiatic marks behind them, including sculptures of the elephant, which was unknown in America within historical times.

*L'Architecture Vivante*, the French quarterly of the "advanced guard," gives most of its photographic plates to the work of the Germans in the autumn number. There is a model of a theatre and several other works by Walter Gropius, while Ernst May's housing at Frankfurt



and Poelzig's "Capitole" Cinema at Berlin are among the works illustrated. In the text M. Badovici writes on the Metal House in Germany, and shows how they are following up the English experiments in this direction.

The November issue of *L'Architecture* has nothing of particular interest, but in *La Construction Moderne* for 1 December there is a good simple modern villa at St. Cloud by M. Sûe, with a charming garden, while the number for 8 December gives M. Urbain Cassan's subsidiary buildings, including the buffet, at his new concrete railway station at Lens. The issue for 15 December gives plans and progress photographs of a large block of flats at Rue Manin, Paris, by M. Planché.

*Wasmuths Monatshefte* for December prints a number of photographs and plans of a series of interesting brick-built electric power- and sub-stations connected with the Berlin Electric Railways, and *Innen Dekoration* is full of views of the "Bremer" and a great many posters collected from almost every country in the world. *Starcha*, published in Prague, has some clearly reproduced photographs of a *cité jardin à la Le Corbusier*, including small houses and tenements.

## Correspondence

### ARE BUILDING BYE-LAWS DESTRUCTIVE OF RURAL BEAUTY?

Council Offices,  
London Road,  
Welwyn, Herts.  
21 January 1930.

To the Editor, JOURNAL R.I.B.A.—

SIR,—As a surveyor to a rural district council, I much appreciated the courtesy of the President and Council of your Institute in inviting me to attend the debate on building bye-laws which was held on 16 December last, and I was greatly disappointed that unforeseen circumstances prevented me at the last moment from being present.

The Secretary of the Institute has been kind enough to send me a copy of the JOURNAL containing a report of the debate, and a letter on the subject written by Mr. P. C. Blow, in the reading of both of which I have been greatly interested.

I am sorry to note that a very poor opinion of my professional brethren appears to be held by architects, if the impression created by Mr. Baillie Scott's paper is to be taken as reflecting the general opinion of the architectural profession.

I am constrained to point out that in the matter of making and administering bye-laws, neither a local authority nor their officers have very much discretion. Bye-laws can only have effect after they have been confirmed by the Minister of Health, and in framing their bye-laws local authorities are, for all practical purposes, tied down to the model draft which is supplied to them by the Ministry. Upon the wisdom or otherwise of this I make no comment. Probably having regard to the desirability of some degree of uniformity, it is a wise procedure, but however this may be, I do think it is grossly unfair to blame local authorities, and still more their surveyors, for the apparent unreasonableness of any bye-

laws which may have been made within, say, the last five or six years.

A further point which cannot be too strongly stressed is that a bye-law, once made, must be enforced; and no surveyor has any authority for approving any plan or work which does not conform strictly to the literal reading of a bye-law, even though he himself may think that an alternative suggested by an architect or builder is to be preferred from every point of view. I imagine that most district surveyors, being familiar with the bye-laws which it is their duty to administer, are only too willing to place at the disposal of any architect or builder such knowledge as they may have of bye-law peculiarities with a view to seeing how far the wishes of individuals can be met, still keeping within the law.

I am rather surprised to find what a large volume of opinion there appears to be against the minimum requirements of 8 feet height in habitable rooms and window area equal to one-tenth floor area. It seems to me that a reference to ancient custom in the matter of low rooms and small windows is hardly sufficient justification for condemning more modern ideas. There are more points than merely the feeling of spaciousness to be considered.

It was, of course, pointed out at the meeting that the first mentioned requirement is not now commonly in force in rural districts, and with regard to the second, my experience is that architects are usually able to divide up the total window space required into a sufficient number of small units to ensure the external appearance which they desire.

Some time ago, to meet the wishes of others interested, the writer endeavoured, in connection with the preparation of a new series of bye-laws, to secure certain variations from the ordinary requirements of the model bye-laws, but when the powers that be were approached it was found that there were serious obstacles, described as "legal principles," which are possibly not obvious to the ordinary practical man. The result of the effort was not encouraging.

Mr. P. C. Blow may be interested to know that one point in connection with which discretionary power or modified requirements were unsuccessfully sought, was the provision of "unsightly gratings" to which he has referred.

I trust that the debate and discussion may have the effect of causing architects to appreciate the difficulties of district surveyors, to think more kindly of them than Mr. Baillie Scott appears to have done hitherto, and to refrain from blaming them for unreasonableness for which they are not responsible, bearing always in mind that besides beauty of form, practical common sense, etc., there are also "legal principles" to be considered.—I am, Sir, yours faithfully,

C. H. BORTHWICK, M.Inst.M. and C.Y.E.

### INTERNATIONAL CONGRESS OF ARCHITECTS.

The Twelfth International Congress of Architects will take place in Budapest, between 1-14 September 1930. In connection with the Congress an international exhibition of architectural plans and designs will be arranged in which the modern architecture of the whole world will be represented.



## Charing Cross Bridge

In connection with the Charing Cross Bridge controversy, we print below two letters from the President, Sir Banister Fletcher, F.S.A., which have been published in *The Times* of 24 January and 1 February, respectively:

### CHARING CROSS BRIDGE.

To the Editor of "The Times."

SIR,—On 23 December the Minister of Transport, together with the Chairman of the Improvements Committee of the London County Council, received a deputation representing the Royal Institute of British Architects and the Thames Bridges Conference. A summary of what took place was published in *The Times* about three weeks later, 14 January; but the interval thus given for consideration has not modified the attitude taken up at the meeting by the official speakers on that occasion, who instead of countering by argument the objections put forward to their scheme on the score of faulty and wasteful route-planning, absence of provision for architectural design and for betterment values, blocking-up and degradation of the Surrey side by a badly placed station, viaducts and tunnels, and the excessive cost involved in the destruction of valuable buildings, replied with a bald reaffirmation of their belief that they had obtained the best possible traffic solution, and of their determination to press the scheme through Parliament without substantial change.

The only mitigations they were able to hold out for South-Central London were "a beautiful embankment garden" (partly, however, to be covered by the bridge) and an optimistic view as to amenities of road-tunnels. Architecture, they indicated, must take its chance after the conditions controlling it have been already compromised.

This official satisfaction with a scheme which has no defenders, outside its official sponsors, and which would appear to have been finally arrived at without being based upon any proper scheme for the re-planning of the whole area, and rather through impatience and weariness than by a due study of the problem, leaves the Institute and the Conference no option but to oppose the passage of the Bill through Parliament by every means in their power. To the official dismissal of alternatives, both the Royal Institute and the Thames Bridges Conference reply that, while it is not for them at this stage to put forward any substitute scheme, they are convinced that the official project is the worst among the various schemes already proposed. They therefore call upon the Parliamentary representatives of London constituencies and all others interested in the most momentous reshaping of London since the Great Fire to unite in rejecting an unworthy a scheme.

The question has been raised as to whether the London County Council, in the event of the failure of the present plan to secure the approval of Parliament, might revert to the destruction of Waterloo Bridge. It is difficult to believe that this idea could be seriously entertained, since, apart from other considerations, it would provide no solution for the traffic problem.

A statement is in preparation setting out, in fuller

detail than hitherto, the serious faults of the official scheme, for the benefit of members of Parliament, since no model of the sites affected or of the projected reconstruction has as yet been provided for their enlightenment.

I now learn, however, with satisfaction that, according to the suggestion I made in my inaugural address at the Royal Institute of British Architects on November 4, a scale model is at last to be prepared, and I hope that my second suggestion, that a competition should be held, will in due time also be carried out, so as to secure all the best ideas for so important and difficult a project—I am, Sir, your obedient servant,

BANISTER FLETCHER, President R.I.B.A.

### CHARING CROSS BRIDGE.

To the Editor of "The Times."

SIR,—In the *résumé* published in *The Times* to-day\* of the proceedings of the Improvements Committee at the meeting of the L.C.C. on 28 January respecting the Charing Cross Bridge scheme, I notice that the chairman of the Improvements Committee, Sir Percy Simmons, referred to two points. The first was that the model now in preparation was not the result of the suggestion I made in my address to the R.I.B.A. on 4 November, but that a model was already decided upon. The word "already" is ambiguous, though perhaps not intentionally so. If it means that the model was already resolved upon by the Committee before my suggestion of 4 November, why then was such an important decision not sent to *The Times* for publication, together with the text of the Bill to be laid before Parliament? Why were we not made acquainted with this important and useful decision? It would have saved a great deal of anxiety on the part of those who are genuinely interested in securing the best possible development scheme for the centre of London, more especially as the full text of the Bill was published after Sir Edwin Lutyens had left for India and so we had no opportunity of discussing our anxieties with him.

It is a matter of no importance as to who first suggested the necessity for a "model," but it is of vital importance in considering the proper solution of this great town-planning problem that those who have the heavy responsibility of decision should also have the fullest opportunity of studying from an actual model as well as from the text of a Bill the serious import to London of the official scheme with all that it involves in town planning. My contention is that the model should not be a last-moment model, too late for members of Parliament or anyone else to study and digest, but should have been ready now, so as to give time for mature consideration before decision. It should, I suggest, be placed at once in the Smoking Room of the House of Commons.

Sir Percy's second point was in reference to my insistence on the importance of an open competition, and here again he is reported as saying that "The Improvements Committee had already decided that in due course the Council should be advised to obtain designs for the scheme by open competition." But what does he mean

\* 29 January 1930.



by this? It is rather difficult to see how this could be, seeing that the official scheme was sprung upon us full-grown and perfect—though as I think imperfect—in all its parts, like Athena in complete armour from the head of Zeus!

In order to have a satisfactory open competition we must first secure the rejection of the official scheme by Parliament. It is obvious that in the competition Sir Percy suggests the competitors will merely have to make the best they can of the official scheme with all its main lines and principles already fixed, whereas I, of course, am urging that the best brains of the country should be given a chance of finding the ideal solution for the whole problem.

I am, etc.,

BANISTER FLETCHER,

*President, The Royal Institute of British Architects.*

### THE PRESERVATION OF RURAL ENGLAND.

A Conference of representatives of the joint advisory panels which have been set up by the Council for the Preservation of Rural England and the Royal Institute of British Architects, was held at the R.I.B.A. on 23 January, Mr. E. Guy Dawber, A.R.A., P.P.R.I.B.A., in the chair.

Mr. Greenwood, the Minister of Health, spoke on the disfigurement of the English countryside. He said that his special duty was to commend the work of the joint advisory panels for which the Council of the Royal Institute of British Architects had made themselves responsible. Our land was being defiled, first because of the sprawling erection of new buildings in the wrong places, and secondly by the erection of buildings which must be an eyesore to all people with even an embryonic sense of decency. No day went by but you would find, sprawling out from our great cities, another yard or two of bungalow extension; no month but you could notice on our great roads some new addition to the defilement of the countryside. These were matters of tremendous spiritual importance for our people.

In Cambridgeshire, Hampshire, and Devon very considerable headway had been made. If there was anything he himself could do to assist the work he would be very glad indeed to do it. Some 15 months ago his predecessor sent round a circular to local authorities informing them of this movement, giving it his blessing, and urging them to take action. If any good service could be performed by a reissue, in more vigorous language, of that appeal to local authorities, then he was prepared to do it.

Referring to an item in the conference agenda concerning the control of elevations under town-planning schemes he said in his view we had not done nearly as much as we should have done in that direction. He proposed that we should now take much more vigorous action along those lines. It was no use crying after the milk was spilt, and it was no good complaining when we had mistakes; and unless we could see a more general exercise of control of elevations, then ugliness would persist in all our structures.

### THE ROYAL GOLD MEDAL FOR ARCHITECTURE.

At a Special General Meeting of the Royal Institute of British Architects, on 3 February, Mr. Percy Scott Worthington, M.A.Oxon, Litt.D., F.S.A., F.R.I.B.A., was elected by the Members and his name will be submitted to His Majesty the King as a fit recipient of the Royal Gold Medal for Architecture for the year 1930.

### THE LATE SIR LAWRENCE WEAVER, K.B.E.\*

At the General Meeting at the R.I.B.A. on Monday, 20 January 1930 when Sir Banister Fletcher, F.S.A., President, gave his Address to Students, the Honorary Secretary, Mr. Sydney D. Kinson, spoke of the death of Sir Lawrence Weaver, K.B.E., in the following terms:—I deeply regret to announce the death of Sir Lawrence Weaver, K.B.E., F.S.A., who was elected Honorary Associate in 1916. Sir Lawrence Weaver had a peculiarly vital and personal individuality, and the chief among his almost innumerable activities was the advocacy of fine architecture as an essential part of our national life. He was a discriminate, and a great friend of architects, and by his writings he did much to advance the cause of seemly building. I feel that we in this Institute have lost a very great friend, and that England has lost one who was advancing the cause of decent civilisation among us.

It is with real sorrow that I move that the regrets of the Institute for his loss be entered on the minutes, and that a message of sympathy and condolence be conveyed to his relatives.

### LECTURES ON TECHNICAL ACOUSTICS.

A course of six lectures on Technical Acoustics will be given at the Chelsea Polytechnic, Manresa Road, S.W.3, by A.H. Davis, Esq., D.Sc., of the National Physical Laboratory, on Fridays at 6.15 p.m., commencing on 14 February 1930. The lectures are intended to provide instruction primarily for those engaged in the manufacture, testing and sale of instruments of an acoustical nature in the modern methods of dealing with acoustical problems. Included in this series is a lecture on the acoustics of buildings, which deals with loudness, echoes, reverberation, correction of acoustical defects and electrical speech amplifiers. The fee for the course is 5s.

### THE ROYAL NATIONAL Eisteddfod of WALES.

LLANELLY 1930:

The Art, Crafts and Science Section of the National Eisteddfod of Wales this year comprises a list of competitions in Architecture, Fine Art, Sculpture, Applied Art and Domestic Arts and Crafts. Prizes in architecture are offered for a Public or Town Hall for a provincial town, a Central Motor Bus Station or Terminus in a provincial town, a Pair of Workmen's Cottages in an industrial area, and for a Set of Measured Drawings. Programmes giving full particulars of all the competitions can be obtained from the publishers, Messrs. James Davis and Co., Ltd., South Wales Press, Murray Street, Llanelly.

\* An obituary notice by Professor A. E. Richardson appeared in the last issue of the JOURNAL, p. 226.



## Allied Societies

*(The attention of Members of the Allied Societies is particularly called to this page)*

### GLOUCESTERSHIRE ARCHITECTURAL ASSOCIATION.

A meeting of the Gloucestershire Architectural Association was held at the Spread Eagle Hotel, Gloucester, on Wednesday evening, 22 January, Mr. Thomas Falconer, F.R.I.B.A., President, being in the Chair.

Dr. Houlston Morgan, Ph.D., B.Sc., A.R.C.S., F.I.C., Past President of the Paint and Varnish Research Association, spoke on "Protective and Decorative Painting."

The lecturer dealt with the history and composition of paints and varnishes, and with many difficulties in connection with their manufacture and application, and the address was illustrated by practical experiments. The importance of craftsmanship was emphasised both by the lecturer and by others who spoke afterwards.

A vote of thanks was passed to the speaker on the proposition of Mr. A. Seaton White, B.Sc. (Principal of the Cheltenham School of Arts and Crafts), seconded by Mr. H. T. Rainger, A.R.I.B.A.

### HANTS AND ISLE OF WIGHT ARCHITECTURAL ASSOCIATION.

#### FORMATION OF HAMPSHIRE BRANCH OF COUNCIL FOR THE PRESERVATION OF RURAL ENGLAND.

A conference, which was largely attended, was held at the South-Western Hotel, Southampton, on 28 January to consider a proposal to form a Hampshire Branch of the Council for the Preservation of Rural England. The conference had been jointly convened by the Hampshire Rural Community Council and the Hants and Isle of Wight Architectural Association, both of which bodies were well represented among the audience. The Chair was taken by the Right Hon. the Earl of Malmesbury, D.L., J.P., who was supported on the platform by the Earl of Crawford and Balcarres, K.T., F.R.S. (President of the Council for the Preservation of Rural England), Mr. Guy Dawber, A.R.A. (Vice-President of the Council), Mr. H. G. Griffin (Secretary of the Council), Lord Manners, the Mayor of Winchester (Councillor Harry Collis), the Mayor of Southampton (Councillor Hector Young), Sir Stuart Fraser, K.C.S.I., Sir Vere Hobart, Bt., Major H. Aris (Chairman of the Hampshire Rural Community Council), and Hon. Secretary, County Landowners' Association), Mr. J. A. Smith (President, Hants and I.W. Architectural Association), Mr. J. S. Furley (Chairman of the Winchester Town Planning Advisory Committee), Principal K. H. Vickers (University College, Southampton), Councillor E. W. Cross (Sheriff of Southampton), Mr. D. T. Cowan, Mr. A. L. Roberts (Hon. Secretary, Hants and I.W. Architectural Association), and Mr. H. H. Jenkins (Organising Secretary, Hampshire Rural Community Council).

The Chairman introduced the Mayor of Southampton, who extended a cordial welcome to the conference on behalf of the civic body and the townspeople.

In the course of his speech the Chairman said that there were a good many people who thought that the passing of a recent Act of Parliament, commonly known as the Local Government Act, 1929, had further removed all responsibility, or the responsibility of private enterprise from the region with which they were concerned that day. As one of those who had to administer that Act, he was sure that all who were connected with town planning or any attempt to maintain the beauty of the countryside would welcome private enterprise and private co-operation with both hands. Under the new Act—and it applied especially to country districts—the County Council might, and they hoped to have the co-operation of the County Council of the Isle of Wight, become the authority for town planning, but up to recently the County Council had no power

to deal effectively with town planning. Now it might become the sole authority, or the joint authority with other authorities. He would not labour that except to say that people could see how the local authorities had increased powers to deal with town planning, etc., and therefore should not let any enthusiasm they had towards this movement wane. What was the cause of this movement? The real cause was that certain people, not only those imbued with great artistic talent, but the public generally, realised that the countryside was being ruined. They had not to go any distance along their roads to observe that.

One thing which ruined their countryside, and one which they must not forget, was the burden on the landowners in the form of death duties and taxation. That had gone a long way to devastate the countryside. Death duties and taxation had forced landlords to sell, wholly or in part, their hereditary estates, and they had passed to people who had built bungalows and shacks in order to meet the pressing need for houses, and wayside garages with yellow and red painted pumps. Let no one forget that the Government was sometimes responsible for the disfigurement of the countryside. What about the Electricity Board? They could see wonderful rows of pylons going up which no one could say added to the beauty, even of what was not already a beautiful place.

The Earl of Crawford and Balcarres said they had a great deal to lose in Hampshire, and in many directions it was threatened in a way that other counties were not. It was especially important to-day that the approaches to the historic centres should remain intact. In every direction the beauty of the countryside was threatened; it meant that the approaches might become squalid, or that the exits were not worthy of the dignity of a great town. In many ways the preservation of rural amenities was a matter more for the towns than the country itself. Public opinion on these matters was being awakened. If they took the cutting down of trees, as they knew, they were being destroyed in many places in a ruthless degree. That was happening where roads were being widened, whereas they might, with a little forethought, have been preserved. An aesthetic value of a site was of definite cash value to the country. Opinion was only just becoming alive to these things because the dangers were becoming acute; unless they were up and taking action, spots and districts which they had looked upon as a heritage of beauty would be lost for ever. The C.P.R.E. was concerned in this problem; they wanted to control modern developments rather than stop them. They were not opposed to new roads, but they wanted to see them designed in some relation to the contour of the land. They were not opposed to housing schemes, but they should be controlled rather than spread ribbon-wise along all the roads of the country. In that movement they had the co-operation of several organisations interested in the many aspects of the problem, to whom they could turn for sound advice, with the result that they were able to focus on the whole question a volume of knowledge and considered opinion hitherto not available. The movement was growing apace, but there were plenty of areas where, in spite of a strong desire that something should be done, no organisation had yet been formed. Therefore, he rejoiced to hear of the conference they were holding that day. One result he hoped would be a strong and vigorous movement in the county, and, if it became necessary, they would take a strong line in opposition. The urgency of the matter was growing day by day, because their rural scenery was the only thing that was English in England; it was, as he had said, a heritage, and they should do their best to preserve it.

Mr. Guy Dawber, in the course of his address, said that one of the most depressing results of the change overrunning the country to-day was the bad type of house being



built. He drew attention to the formation of Advisory Panels, which had been set up in connection with town planning and building schemes. Unfortunately they were set up late in the day, but what they did was to give helpful advice in town planning and layout generally. If their existence was better known and understood, there would be less criticism of them; what was needed, therefore, was to make them better known and enable people to realise that they were out to help and not to hinder the authorities.

Disfigurement was being done to the countryside by the modern type of building more than by anything else, and there was no power to prevent it. Among the great supporters of the Advisory Panels was the Minister of Health, who had declared that, unless they could get a more general control over elevations, ugliness would prevail in all structures, and, he added, he meant to do everything in his power to promote the object for which the panels existed.

Mr. H. G. Griffin (Secretary to the C.P.R.E.), at the request of the Chairman, outlined the best methods of procedure for the formation of County Branches. Their County Branch would, he said, be a miniature C.P.R.E. At headquarters they wanted to de-centralise, and to see each county with its own Council. Such bodies already existed in Devon and Cornwall, and in Dorset steps were being taken in the same direction. There were 28 constituent bodies in the C.P.R.E., including the County Councils' Association, the District Councils' Association, the Landowners' Association, the Architects', Surveyors' and Land Agents' Societies, the R.A.C. and A.A., the W.I. Federation, the Footpaths Preservation Society, the Society for the Control of the Abuses of Public Advertising, etc., etc. In Hampshire the existing organisations should appoint representatives on the Central Body, from which they should form an Advisory Body.

Lord Manners moved:—

"That it is desirable that a branch of the C.P.R.E. be formed to operate in the geographical area of Hampshire and the Isle of Wight, the cities of Winchester and Portsmouth, and the county boroughs of Bournemouth and Southampton."

The resolution was unanimously agreed to.

Major H. Aris next moved:—

"That a Committee be appointed of the bodies responsible for calling this meeting, viz., the Hampshire Rural Community Council and the Hants and Isle of Wight Architectural Association, together with the Chairmen of the Committees responsible for the Town Planning Schemes within the area, with power to appoint a representative Council to draft a constitution, including arrangements for carrying on the secretarial duties."

Mr. J. S. Furley seconded and the resolution was agreed to.

#### SHEFFIELD, SOUTH YORKSHIRE AND DISTRICT SOCIETY OF ARCHITECTS AND SURVEYORS.

Mr. H. V. Lancaster, F.R.I.B.A., M.T.P.E., gave a lecture on "Indian Architecture" at Sheffield University, on 4 January 1930. In the course of his lecture he said that the earliest architectural work extant in India—300 to 400 B.C.—exhibited the influence of Persia. This influence was confirmed by writings on the political organisation which displayed similarities.

At a later date—A.D. 100 to 200—ornament had diverged, and design—*vide the "ropes" at Sanchi and elsewhere*—was strongly influenced by timber construction. Sculptural decoration was used freely. This showed in the north-west Greek influence which did not, however, penetrate to the south.

In A.D. 600 to 1500 Southern India had a gradually developed architecture originally embodying such features as timber construction, thatched roofs, and the Buddhist groups of monastic cells. These latter were the basis of the decorations of the pyramidal "vimanas" (temples) and "gopurams" (temple gateways) which sometimes rose to a height of 200 feet.

The finest examples of this style was probably the rock-cut temple of Kailas at Ellora (A.D. 800), unrivalled throughout the world for its skilful contrast between sculptured and plain surfaces and the consequent distribution of light and shade. This style of work had remained the fixed tradition of Southern Indian temple architecture to the present day, though modern work was almost purely repetitive. It had also formed the basis of the style as exhibited in Cambodia and Siam which were colonised by Indian emigrant peoples.

Towards Central India, A.D. 1200 to 1550, the style was qualified by the Chalukyan peoples, who introduced interesting variants, but whose later work was somewhat debased though richly decorated with sculpture.

The buildings above referred to were all based on trabeated structure, though the "sun window" used decoratively, had the form of a horse-shoe arch.

In the north, 1100 to 1500, the purity of the Hindu architecture was qualified by the Moslem invasion which, coming through Persia, once more introduced the form of design then practised in that country—viz., the arched treatment, but this only by slow degrees until the Mogul invasion in 1500 brought a demand for buildings as near those of Persia as possible, such as Humayun's Tomb at Delhi and the Taj Mahal at Agra. These led the way to a new type generally known as Indo-Saracenic (1600–1900), in which the Indian manner of surfaces in receding planes was combined with the arched compositions of Persia. Many variants of that may be found in different districts of Northern India but the most successful architecturally was that of Gujarat on the west coast north of Bombay, where the Hindu element was strongest.

This mixed style did not penetrate to the south to any great extent, and the indigenous architecture there was only corrupted by influences from Europe, Portuguese, Dutch and British A.D. 1600–1800.

These influences had also, to a less extent, affected Northern India, as the Hindu had always been eclectic in his taste and prepared (except in sacred buildings) to adopt any feature that appealed to him.

The paper included some notes on the Hindu traditions for planning towns and examples, showing how the great temple formed the focus of the plan, and the rectangular main street line provided for the annual sacred procession. Other points dealt with were the organisation of the system of tanks and the use of these in relation to religious observances.

Domestic architecture in stone and in timber was also described, and some idea given of the general character of the towns and the variation due to local conditions, the term local being used in its broadest sense, India being less a nation than a continent with its numerous racial groups and its 60 major languages.

#### WEST YORKSHIRE SOCIETY OF ARCHITECTS.

A meeting of the West Yorkshire Society of Architects was held at its Leeds headquarters on 23 January. Mr. G. H. Foggitt, president, in the chair. After the election of new members and other formal business, the chairman introduced Mr. R. J. Gordon, the Leeds City librarian, who, besides coming to address the members on architectural literature, had arranged round the meeting room more than one hundred specimens of the books contained in the Leeds central loan and reference libraries relating to architecture.

Mr. Gordon said that they were living in an age of paper and printing, as well as of electricity. A mere collection of books did not make a library until they had been codified and catalogued, and further, until the scope of the literature provided was clearly brought to the notice of those interested in particular branches of art or technique. It was only possible to bring books into circulation by publicity. Formerly such tactics were regarded as undignified, but happily that idea was dying out.

Mr. G. H. Foggitt moved a vote of thanks to Mr. Gordon, which was seconded by Colonel H. W. Barker.



### ISOMETRIC DIAGRAM OF THE CONSTRUCTION OF THE DOME OF ST. PAUL'S CATHEDRAL.

An illustrated Public Lecture will be given at Birkbeck College, Breems Buildings, Fetter Lane, E.C.4, on Monday, 3 March 1930, at 5.30 p.m. by Professor Beresford Pite, M.A., A.R.C.A., F.R.I.B.A., on "The Isometric Diagram of the Construction of the Dome of St. Paul's Cathedral," prepared by Mr. R. B. Brook-Greaves. The Chair will be taken by Sir Frederick Kenyon, G.B.E., K.C.B., D.Litt.

Members and Students of the R.I.B.A. are cordially invited to attend. Admission free.

### NEW BUILDING MATERIALS AND PREPARATIONS.

The Science Standing Committee wish to draw attention to the fact that information in the records of the Building Research Station, Garston, Watford, is freely available to any member of the architectural profession, and suggest that architects would be well advised, when considering the use of new materials and preparations of which they have had no previous experience, to apply to the Director for any information he can impart regarding their properties and application.

### R.I.B.A. FINAL EXAMINATION, INDIA.

The R.I.B.A. Examination Board in India have arranged to hold the R.I.B.A. Final Examination in Bombay from 2 April to 9 April 1930. The last day for receiving applications, which should be sent to the Secretary of the R.I.B.A. Examination Board in India, 43 Apollo Street, Fort Bombay, is 3 March.

### THE TITE PRIZE AND THE VICTORY SCHOLARSHIP, 1930.

#### PRELIMINARY COMPETITIONS.

The attention of intending competitors is called to the fact that the Preliminary Competitions for the Tite Prize and the Victory Scholarship will be held in London and at centres in the provinces on Thursday, 6 March, and Friday, 7 March 1930, respectively.

Forms of application for admission to the Preliminary Competitions may be obtained at the R.I.B.A., 9 Conduit Street, W.1. The closing date for the submission of forms of application is Saturday, 22 February 1930.

## Notices

### THE EIGHTH GENERAL MEETING.

The Eighth General Meeting (Ordinary) of the Session 1929-1930 will be held on Monday, 17 February 1930, at 8 p.m., for the following purposes:

To read the Minutes of the General Meetings (Special and Business) held on Monday, 3 February 1930; formally to admit members attending for the first time since their election.

To read the following paper, "The Thames Valley Preservation Scheme," by Professor Patrick Abercrombie, M.A. (Liverpool) [F.].

### ELECTION OF MEMBERS, 16 JUNE 1930.

Associates who are eligible and desirous of transferring to the Fellowship are reminded that if they wish to take advantage of the election to take place on 16 June 1930 they should send the necessary nomination forms to

the Secretary R.I.B.A., not later than Saturday, 8 March 1930.

### LICENTIATES AND THE FELLOWSHIP.

The attention of Licentiates is called to the provisions of Section IV, Clause 4 (b) and (c) of the Supplemental Charter of 1925. Licentiates who are eligible and desirous of transferring to the Fellowship can obtain full particulars on application to the Secretary R.I.B.A., stating the clause under which they propose to apply for nomination.

### PAMPHLET ON PROFESSIONAL CONDUCT AND PRACTICE.

At the suggestion of the Practice Standing Committee, the Council of the R.I.B.A. have had reprinted and bound together in pamphlet form the following papers on Professional Conduct and Practice, by Mr. W. E. Watson, F.R.I.B.A., Barrister-at-Law, that have appeared in recent years in the R.I.B.A. JOURNAL:—

- (1) Easements (reprinted from R.I.B.A. JOURNAL of 17 September 1927).
- (2) Handbook of Architectural Practice (reprinted from R.I.B.A. JOURNAL of 28 January 1928).
- (3) Party Walls (reprinted from R.I.B.A. JOURNAL of 24 November 1928).
- (4) Contract (reprinted from R.I.B.A. JOURNAL of 12 January 1929).
- (5) Specification (reprinted from R.I.B.A. JOURNAL of 9 February 1929).

While the papers are not exhaustive treatises on the subjects, they are based on the standard works which are recommended for student courses, amplified by incidents arising in the Courts of Justice.

The Council consider that the papers will be found helpful to the inexperienced architect and to others in dealing with those questions which present difficulty in everyday practice, and are specially recommended for perusal by students.

A general index has been prepared by Mr. H. C. Hughes, M.A. (Cantab) [A.], also an index of cases.

Copies of the pamphlet can be obtained on application to the Secretary R.I.B.A., 9 Conduit Street, W.1, price 2s. 6d. each.

### APPLICATIONS FOR MEMBERSHIP.

#### ELECTION: 7 APRIL 1930.

The following applications for election have been received. Notice of any objection or other communication respecting the candidates must be sent to the Secretary for submission to the Council prior to Monday, 3 March 1930.

#### AS HON. ASSOCIATES [2].

- ALEXANDER: SIDNEY ARTHUR, M.A., Canon and Treasurer of St. Paul's Cathedral, 2 Amen Court, London, E.C.4.  
GORTSE: SIGISMUND CHRISTIAN HUBERT, Grove House, Regent's Park, N.W.8.

#### AS HON. CORRESPONDING MEMBERS [2].

- PONTRMOLI: EMMANUEL, President of the Société Centrale des Architectes Français, Professor à l'École Supérieure des Beaux Arts à Paris, Inspecteur des Bâtiments et Palais Nationaux, Membre de l'Académie des Beaux Arts (Institut de France), 1 Rond Point, Bugaud, XVème, Paris.  
SANO: DR. RIKI, Lecturer of Imperial University, Tokyo,



President of the Japanese Institute of Architects, Dean of Technical College of Nihon University, Tokyo, 160 Kogomachi, Koishikawa-ku, Tokyo, Japan.

## AS FELLOWS [18].

- BENSLYN: WILLIAM THOMAS, A.R.C.A. [A. 1911], 5 Lancaster Place, Strand, W.C.2; 17 Easy Row, Birmingham; 12 Charlotte Road, Edgbaston, Birmingham.
- BROWN: Colonel JOHN, C.B., C.B.E., D.S.O., T.D., J.P., D.L. [A. 1921], 83 St. Giles Street, Northampton; Harpole Grange, Northampton.
- BUTLER: CECIL GEORGE [A. 1921], Architects' Department, Temple Fortune House, Golders Green, N.W.; 33A The Parade, Golders Green, N.W.; 221 Hampstead Way, Golders Green, N.W.11.
- CORR: ROBERT STANLEY, M.C. [A. 1924], P.O. Box 58, Nairobi, Kenya Colony.
- CULLEN: ALEXANDER, F.S.I., F.S.A. (Scot.) [A. 1920], 83 Cadzow Street, Hamilton, Scotland; Invercoe, Uddingston, Lanarkshire.
- HUGHES: HENRY CASTLE, M.A. (Cantab.) [A. 1921], Tunwell's Court, Trumpington Street, Cambridge; Gainer Cottages, Grantchester, Cambridge.
- OWEN: REGINALD WYNN [A. 1921], Easton Station, London, N.W.1; Staceys, Harwoods Road, Watford, Herts.
- ROLLO: ROBERT LESLIE [A. 1920], Aberdeen School of Architecture, Robert Gordon's College, Aberdeen; 375 Union Street, Aberdeen; Camloun, Culta, Aberdeen.
- SOMERVILLE: WILLIAM LYON [A. 1928], 2, Bloor Street West, Toronto; 269 Oriole Parkway, Toronto.
- SURMAN: JOHN BURGESS [A. 1909], 17 Easy Row, Birmingham; 45 Selwyn Road, Edgbaston, Birmingham.
- WOOD: WILLIAM WALTER [A. 1921], 8 Sussex Terrace, Plymouth; Down Thomas, Plymouth.
- WORTHINGTON: JOHN HUBERT, O.B.E., M.A., Hon. A.R.C.A. [A. 1912], 178 Oxford Road, Manchester; The Pantiles, Alderley Edge, Cheshire.

And the following Licentiates who have passed the qualifying Examination:—

- CURRY: HAROLD WYNN, F.S.I., 51A Catherine Street, Westminster, S.W.1.
- HOLMES: ARTHUR HERBERT, Tower Buildings, 99 High Street, Southend-on-Sea; Brick House Farm, Pitses, Essex.
- KESTEVEN: LEOFRIC, Asst. Architect, Public Works Department, Selangor, Federated Malay States.
- ROBERTS: FREDERICK ANDREW, Earl Chambers, Mold; "Rusholme," Mold.

And the following Licentiates who are qualified under Section IV, Clause 4 (c) (iii) of the Supplemental Charter of 1925:—

- CAMPBELL: WILLIAM, 6 Pall Mall, Hanley, Stoke-on-Trent; Victoria Road, Shelton, Stoke-on-Trent.
- SNOWDEN: THOMAS, County Buildings, Land of Green Ginger, Hull; 1 Salisbury Street, Hull.

## AS ASSOCIATES [13].

- BOON: GEOFFREY MAURICE [Final], "Naadom," Hope Road, Prestwich, Manchester.
- BRADSHAW: RONALD, B.A. Hona. (Arch.), Manchester, (Passed five years' course at the School of Architecture, Victoria University, Manchester. Exempted from Final Examination after passing Examination in Professional Practice), Taxal Gate, Whaley Bridge, Stockport.
- BRENCHLEY: ARTHUR REGINALD [Final], "Cumshaw," Trinity Road, Gillingham, Kent.
- BRIENTALL: RALPH HERBERT [Final], 28 Victoria Park, Fishponds, Bristol.
- BRIGHT: GEORGE EDWARD [Final], 49 Hildrop Road, Tufnell Park, London, N.
- BROWN: COLLINGS WILLIAM [Special], Public Works Department, Union Buildings, Pretoria, South Africa.
- BUTLER: RONALD MCCONNELL (Passed five years' joint course

at the Birmingham School of Architecture and the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice), Reddlyffe, Halesowen, near Birmingham.

- CARTER: EDWARD JULIAN, B.A. Cantab. (Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice), 4, Oakley Street, Chelsea, S.W.3.

CASSELL: GEORGE ARTHUR (Passed five years' course at the Edinburgh College of Art. Exempted from Final Examination after passing Examination in Professional Practice), 1 Corstorphine Park Gardens, Corstorphine, Midlothian.

CHAPLIN: JOHN PERCIVAL [Final], 22 Weaponness Valley Road, Scarborough.

DOWER: JOHN GORDON (B.A. Cantab.) [Final], 66 Willfield Way, London, N.W.11.

DEFFY: THOMAS [Special], 46 Third Avenue, Histon, Bolton.

FLETCHES: JANET (Miss) (Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice), 52 Campden Hill Square, London, W.8.

GRAYSON: ARTHUR BELLHAM (Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice), The Manse, Halesworth, Suffolk.

HARRIS: ALLAN DANIEL AITKEN [Final], 16 Sampson Road, Sparkbrook, Birmingham.

HUGHES: JOHN LESLIE, Dip. Arch. (L'pool) (Passed five years' course at the Liverpool School of Architecture, University of Liverpool. Exempted from Final Examination after passing Examination in Professional Practice), 5 Edge Lane, Edge Hill, Liverpool.

JOHNSON: ALLAN, Dip. Arch. (Leeds) [Final], 2/3 196 Hendon Way, Cricklewood, N.W.2.

KEMP: SIDNEY JAMES, M.M. [Final], Tilehurst, Parley Road, Selkirk, South Croydon.

KINSMONTH: WILLIAM HARDIE (Passed five years' course at the Edinburgh College of Art. Exempted from Final Examination after passing Examination in Professional Practice), Camborne Hotel, 63 Linsmere Square, London, W.3.

MACDONALD: HUGH SINCLAIR (Passed five years' course at the Edinburgh College of Art. Exempted from Final Examination after passing Examination in Professional Practice), The Rowans, Prince Street, Thurso, Caithness.

McMULLIN: ALEXANDER LAWRENCE, B.A. Cantab. [Final], 32 Evelyn Mansions, Carlisle Place, S.W.1.

MARTIN: JOHN LESLIE (Passed five years' course at the School of Architecture, Victoria University, Manchester. Exempted from Final Examination after passing Examination in Professional Practice), Holmleigh, Branthall Lane, Branthall, Cheshire.

MAYNARD: FREDERICK JAMES [Final], 158 Pinner Road, Harrow, Middlesex.

MURRAY: JAMES MACKIE (Passed five years' course at the Edinburgh College of Art. Exempted from Final Examination after passing Examination in Professional Practice), 3 Dick Place, Edinburgh.

NEIL: CHARLES WARREN [Final], "Langley," 14 Valkyrne Road, Westcliff-on-Sea, Essex.

NISBET: JOHN ATHLETES VICTOR, B. Arch. Sydney (Passed five years' course at Sydney University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice), c/o The National National Bank of Australasia, Ltd., 7 Lottibury, E.C.2.

PATKIE: VITAL MILEVO (Passed five years' course at the University of London School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice), 27 Narcissus Road, N.W.6.

PHILLIPSON: BEATRICE JANET (Miss), B.A. (London) (Passed



five years' course at the University of London School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice, College House, Dollis Avenue, Finchley, N.3.

PRICE: GODFREY LANGFORD [Final], 15 Harley Terrace, Gosforth, Newcastle-on-Tyne.

RANDALL: GERALD FRAYNE, B.A. Eng. Camb. (Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice), Westmoor, Tillington, Petworth, Sussex.

REA: HERBERT FRANCIS [Final], Lakemead, Totnes, Devon.

SEGAR-OWEN: GODFREY JOSELYN SEGAR [Final], Palmira Square Chambers, Warrington.

SHAW: ROBERT [Final], Main Street, Cottingham, Bingley, Yorkshire.

SHEPHERD: GEORGE HENRY [Final], c/o 31 Stubble Road, Heckmondwike.

SMEED: CHARLES WILLIAM JAMES (Passed five years' course at the University of London School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice), Electric House, Station Road, Chingford, London, E.4.

SOMMER: ELLIS EDWARD (Passed five years' course at the University of London School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice), 17 Hendon Way, Cricklewood, N.W.2.

STANLEY: LESLIE STUART, M.A. Cantab. [Special], 16 Cole Park Road, Twickenham, Middlesex.

STEELE: FRANK REGINALD [Final], "Newlands," Stockton Brook, Stoke-on-Trent.

TASSELL: GEORGE EDWARD [Final], "Almaville," Tillington, Stafford.

TAYLOR: GEORGE SWAN [Special], 33 Cornely Bank Road, Edinburgh.

WESTERMAN: ALBERT EDWIN (Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice), 88 St. James's Avenue, Beckenham, Kent.

WHEELER-CARMICHAEL: SAMUEL DENNIS (Passed five years' course at the University of London School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice), 22 Portman Street, W.1.

YOUNG: WILLIAM EDWARD [Special], 16 Leyburn Road, Moston Estate, Failsworth, Manchester.

## Queries and Replies

[A large number of questions on points of professional practice and technical interest are addressed to the Practice and Science Standing Committees and to other Committees of the Institute.]

The Council, on the recommendation of the Science Standing Committee, have decided to adopt the procedure of publishing such queries in the JOURNAL, when on matters of general interest, together with the replies of those members who, having special knowledge and experience of the particular questions, have been asked to express their opinions upon them. The scheme is based upon that adopted by the Surveyors' Institution.

The identity of the member seeking the information will not be disclosed, but the replies published will be signed by the members who have supplied them.]

Query No. 4.

### FACING BRICKS.

What is the best practice with regard to facing work in brick buildings—an absorbent brick or a hard brick?

We have recently had trouble with 9 in. external walls built throughout with hard Staffordshire bricks in cement mortar, and the recent rains have penetrated through.

In the writer's own house, which is built with 9 in. walls faced with thin sand faced bricks, with frog sinking, and backed with hard common bricks the walls have proved weather-tight. We can only account for this because the horizontal joints do not go through the walls, except, say, in every sixth course.

We should be glad to have the views of other members of the Royal Institute.

### Replies to Query No. 4.

The capacity of brickwork to absorb moisture or driving rain and thus to conduct damp to the interior plastering, depends largely upon its capacity for capillary attraction. As capillarity varies inversely with the cube of the diameter of interstices, an open texture like punice, argocrete, or a hand-made stock brick obviously makes for dry walls, whilst a dense structure such as is found in Fletton or Staffordshire bricks invites damp.

An eggcupful of water poured over a dry London stock brick will run over the edges. Poured over a typical dry Fletton it will never reach the edges, being sucked greedily into the interior.

For the same reason hard dense cement rendering can be far less waterproof than the soft but less dense lime rough cast.

Hardness, as such, has little or no waterproofing value, provided that a material has sufficient hardness to resist any tendency to become unduly friable under the action of weather.

The possibilities of tar emulsion for waterproofing walls are not yet fully explored.

PERCY J. WALGRAM [L.].

It is almost impossible to make a brick wall watertight owing to the mortar joints. The horizontal joints are generally well filled, but seldom the vertical joints, hence the least pointing crack will often admit wet. With a porous brick such moisture is absorbed and unless the brick reaches saturation point this will continue with surface evaporation except in saturated air conditions. In the case of an impervious brick surface, evaporation being absent, the moisture tends to be absorbed by the internal bricks or plaster where it appears and spreads. The fewer through joints, the less likely is moisture to reach the internal face. A well burnt porous brick is thus better than an impervious brick for most purposes, but drying intervals are necessary, and with 14 inches of rain in two months even an 18-inch solid wall will not keep wet out on south and west aspects. Cavity walls seem to be the only sure means of preventing wet walls in exposed situations after long spells of bad weather. Various specifics for treating bricks to exclude wet seldom last more than two years and in my opinion most of them are wrong in principle.

ALAN E. MURRY [F.].

Unfortunately, the conditions are not given very clearly.

It must be assumed that "hard Staffordshire brick" is a pressed brick with an impervious face, and that this brick is non-absorbent.

The recent gales have exerted a pressure of between 20 and 25 lb. per square foot on vertical surfaces in some districts. Such conditions might actually cause rain to penetrate a porous brick for a short distance, but it would not *drain* it through a one-brick wall.

In my opinion the water was carried through the mortar joints by capillary attraction. It must be noted that the impervious bricks could do nothing to relieve the joints by absorption.



This wall is doubtless very well built with the joints completely filled with mortar, for where discontinuity occurs capillary attraction ceases, unless enough water accumulates to bridge the gap.

It is particularly annoying to find that the excellence of a piece of work has probably contributed directly to a failure.

Unsuitable grading of the sand used for the mortar for building or pointing would also produce favourable conditions for the passage of water through the joints.

In the case of the red sand faced wall the conditions are entirely different physically and structurally. I assume that this wall was subjected to precisely similar conditions of wind and rain as in the former case. Now some red sand faced bricks will absorb quite a large quantity of water. If porosity is continuous through any part of the brick capillary attraction would carry the water through the brick itself, provided that the supply of water was maintained on the surface. We are told that a hard brick backing was used in this wall, and that continuity of structure was only secured in every sixth course.

I agree with the writer in thinking that the reason for the weather resisting properties of this wall is that there was so small a proportion of through bricks employed. The through bricks, however, would be expected to conduct water through the wall, and it may be remarked that this is quite a common failing in the headers of "one brick" work faced with porous bricks.

In my opinion lightly burnt, soft and porous bricks should not be used for facing. Frost on a soft, wet brick is always injurious.

Hard bricks can be had which are delightful in both colour and texture.

I am using such a brick now from a yard at Shiplake, Oxfordshire, which absorbs only an average of 5.05 per cent. of water after seven days' immersion. Water only penetrates these bricks through a thin layer, and when water ceases to reach the surface evaporation takes place rapidly.

Another serious objection to the soft brick, which is capable of absorbing a large quantity of water, is that when evaporation takes place the temperature of the wall falls considerably, and this would tend to produce condensation on the inner surface of the wall if the atmosphere became humid and the wall surface was impervious.

G. N. KENT [L].

At the request of several members, copies of the questions and answers are now printed as separate leaflets and can be obtained free on application to the Secretary.

## Competitions

### ACCRINGTON: NEW POLICE AND FIRE STATIONS.

The Accrington Corporation invite architects to submit, in open competition, designs for new Police and Fire Stations.

Assessor: Mr. Herbert J. Rowse [F].

Premiums: £250, £150 and £100.

Last day for receiving designs, 28 February 1930. Conditions of the competition may be obtained on application to the Town Clerk, Town Hall, Accrington. Deposit £2 2s.

### CLYDEBANK: WAR MEMORIAL.

The Competitions Committee desire to call the attention of Members to the fact that the conditions of the above competition are not in accordance with the Regulations of the R.I.B.A. The Competitions Committee are in negotiation with the Promoters in the hope of securing

an amendment. In the meantime Members should not take part in the competition.

### KING'S LYNN: PROPOSED NEW SCHOOL.

The Competitions Committee desire to call the attention of Members to the following notice which has been issued by the Institute:—

"Members of the Royal Institute of British Architects and of its Allied Societies must not take part in the above competition because the conditions are not in accordance with the published Regulations of the Royal Institute for Architectural Competitions."

### LIVERPOOL: PROPOSED PIER HEAD IMPROVEMENTS.

The Liverpool City Council propose to offer premiums of 1,000 guineas and 500 guineas in connection with a competition for the improvement of the amenities of the Pier Head. (Conditions are not yet available.)

### PLYMOUTH: SUNDAY SCHOOL, FIRST CHURCH OF CHRIST SCIENTIST.

The Competitions Committee desire to call the attention of Members to the fact that the conditions of the above competition are not in accordance with the Regulations of the R.I.B.A. The Competitions Committee are in negotiation with the Promoters in the hope of securing an amendment. In the meantime Members should not take part in the competition.

## Members' Column

### ADMINISTRATIVE COUNTY OF LONDON.

The London County Council invites applications for the position of principal for the new Building Trade School at Lime Grove, Shepherd's Bush, W.12. The school will provide accommodation for 180 boys in a junior day technical school and about 800 evening students. The work of the school will include practical and theoretical instruction in various branches of the building trade.

Preference will be given to a candidate with qualifications in architecture, who has had experience in organisation and teaching.

The person appointed will be required to commence work in April 1930, but the school will not be ready for occupation until September 1930. During the interval the Principal will be required to devote attention to the organisation, ordering of the necessary equipment and the preliminary arrangements for opening in September next.

After September 1931, he will also be placed in charge of the existing school of arts and crafts, which forms part of the same building as the building trade school. Further particulars will be forwarded to all applicants.

Salary—£800, rising by £50 a year to a maximum of £950 a year. Apply Education Officer (T.O.), the County Hall, Westminster Bridge, S.E.1 (stamped addressed envelope necessary) for form to be returned by 11.30 a.m. on 28 February 1930. (Censoring disqualifies).

MONTAGU H. COX,

Clerk of the London County Council.

### MR. H. T. JACKSON.

MR. H. T. JACKSON, A.R.I.B.A., A.M.I.Stress.E., 61 Huntingdon Road, Coventry, begs to state that his telephone number is now Coventry 1377.

### CHANGE OF ADDRESS.

MR. H. JOHN PHILLIPS [L], late of 55 Paradise Street, Birmingham, has moved to 30 Waterloo Street, Birmingham. Telephone: Central 1106.

### PARTNERSHIP WANTED.

FELLOW (Public School and University) who is approaching retirement, desires to make partnership arrangement as regards



his own work only, with firm of, preferably, two well-established architects in West or Central London. Personal references asked and given.—Reply "Box 22," c/o Editor R.I.B.A. Journal.

An old-established North Country firm of architects is open to take into practice an architect of good experience in the preparation of designs, working drawings, details, and especially quantities, with a view to an early partnership. Comprehensive quantities and specifications, and careful scrutiny and checking of all building accounts are of utmost importance.—Apply, giving full information, stating experience, etc., to Box 2087, c/o The Secretary R.I.B.A., 9 Conduit Street, W.1.

#### COMMENCEMENT OF PRACTICE.

MR. ARTHUR PURSOLOVE, A.R.I.B.A., P.A.S.I., has now commenced practice as a chartered quantity surveyor at No. 79 Mosley Street, Manchester. Tel.: Central 3274.

#### COLLABORATION WANTED.

A GENTLEMAN of middle age quietly practising in West End and highly experienced, seeks opportunity of discussing the merits of an association with a senior or firm willing to afford a wider aspect for the writer's ambition and necessity to do far more work.—Reply Box 2082, c/o The Secretary R.I.B.A., 9 Conduit Street, W.1.

#### OFFICE ACCOMMODATION WANTED.

L.R.I.B.A. would be glad to meet a member with spare office accommodation in W. or W.C. district, preferably one to whom occasional assistance would be of value.—Reply Box 2313, c/o The Secretary R.I.B.A., 9 Conduit Street, W.1.

#### WANTED.

SIR BANISTER FLETCHER'S *History of Architecture*, also other books on Building Construction and Architecture, in good condition. Same price and all particulars.—Box 1226, c/o The Secretary R.I.B.A., 9 Conduit Street, W.1.

## Minutes VII

Session 1929-1930.

At a Special General Meeting held on Monday, 3 February 1930 at 8 p.m., Sir Banister Fletcher, F.S.A., President, in the Chair.

The attendance book was signed by 7 Fellows (including 4 Members of Council), 7 Associates (including 1 Member of Council), and 4 Licentiates (including 2 Members of Council).

The Minutes of the Special General Meeting held on Monday, 18 March 1929 having been published in the JOURNAL were taken as read, confirmed and signed as correct.

The President announced the object of the meeting, viz., to elect the Royal Gold Medallist for the current year.

On the motion of the President it was resolved by acclamation:—

"That, subject to His Majesty's gracious sanction, the Royal Gold Medal for the promotion of architecture be presented this year to Mr. Percy Scott Worthington, M.A., Oxon., Litt.D., F.S.A., F.R.I.B.A., in recognition of the merit of his work as an architect."

The Special General Meeting then terminated.

## Minutes VIII

At the Seventh General Meeting (Business) of the Session, 1929-1930, held on Monday, 3 February 1930, immediately after the Special General Meeting above recorded and similarly constituted.

The Minutes of the Ordinary General Meeting held on Monday, 20 January 1930, having been published in the JOURNAL, were taken as read, confirmed, and signed as correct.

The Hon. Secretary announced the deaths of:—

The Rt. Hon. Viscount Escher, G.C.B., G.C.V.O., elected an Hon. Fellow in 1913.

Charles William Callcott, elected Licentiate 1910.

Harry Pilmore Hoskins, elected Licentiate 1911.

John Bryan Nisbet, elected Licentiate 1911.

Horne Edward Rössiter, elected Licentiate 1912.

And it was Resolved that the regrets of the Institute for their loss be entered on the Minutes and that a message of sympathy and condolence be conveyed to their relatives.

The following candidates for Membership were elected by show of hands:—

AS HON. FELLOW (1).

LLEWELLYN: SIR WILLIAM, K.C.V.O., P.R.A.

AS HON. ASSOCIATE (1).

BLOUNT: COLONEL EDWARD AUGUSTINE, C.B.E., F.S.I., Chevalier de la Légion d'honneur. Agent to Lord Howard de Walden. Worth, Sussex.

AS FELLOWS (10).

ARCHER: HOWARD DENNES [A. 1919], Nairobi.

BUSSETT: PERCY VIVIAN [A. 1921].

EPHRIE: CECIL JACOB [A. 1921].

FITZGERALD: GEORGE EDMONDS [A. 1909], Pretoria.

HASELDINE: CYRIL FRANCIS WILLIAM [A. 1919], Nottingham.

And the following Licentiates who have passed the qualifying Examination:—

ADAMSON: JAMES ROBERTSON, Bolton.

BIRD: HUGO RITCHIE, Brentwood, Essex.

ODDEN: CLEMENT COPELAND, Leicester.

SCOTT: WILLIAM, Bolton.

And the following Licentiate who is qualified under Section IV, Clause 4 (c) of the Supplemental Charter of 1923:—

LAKE: GEORGE FREDERICK.

AS ASSOCIATES (7).

BAYNE: OSCAR ANDREW [Final], Melbourne, Australia.

CAMPBELL: SIDNEY GEORGE [Final].

HEATH: CLIVE PATTERSON [Passed five years' course at Sydney University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], Sydney, Australia.

HIGHT: GRAEME IAN CAMPBELL [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], Woking, Surrey.

HIRST: WILLIAM [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], Durban, Natal.

PERKETT: HARRY MICHAEL [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], Redhill, Surrey.

WHITTINGHAM: ARTHUR BENELLY, M.A. (Cantab.) [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], Ipswich, Suffolk.

The Chairman announced that by a resolution of the Council the following had ceased to be members of the Royal Institute:

As Associates.

Raymond Synnot.

Charles Arthur Ford Whitcombe.

Llewellyn Edwin Williams.

Cecil Reynolds Winter.

As Licentiates.

Thomas Brown.

William Hull-Brown.

Walter Pantoni.

Vamanrao Vithalrao Vadmarkar.

The proceedings closed at 8.10 p.m.

R.I.B.A. JOURNAL.

DATES OF PUBLICATION.—1930.—22 February; 8, 22 March; 12, 26 April; 10, 24 May; 7, 21 June; 12 July; 9 August; 20 September; 18 October.



# Journal of the Royal Institute of British Architects

THIRD SERIES

VOL. XXXVII. No. 8

22 FEBRUARY 1930

## Contents for 22 February 1930

	Page
TOWN HALL, CRAIL, FROM A PENCIL SKETCH. By John Keppie, A.R.S.A. [F.]	Frontispiece
HIMALAYAN ARCHITECTURE. By A. H. Longhurst, Superintendent, Archaeological Survey of India	151
FOUR SKETCHES BY MR. JOHN KEPPIE, A.R.S.A. By Arthur Bartlett [F.]	164
REVIEWS :	
SYDNEY D. KRISON'S "JOHN SELL COITMAN"	167
CORRESPONDENCE :	
QUESTIONS AND REPLIES. By Lt.-Colonel G. Reavell [F.]	167
ACOUSTICS OF THE ROYAL ACADEMY. By Arnold Silcock [F.]	166
CHARING CROSS BRIDGE. THE CONFERENCE REPORT	168
THE INSTITUTE OF LANDSCAPE ARCHITECTS	170
ROYAL SOCIETY OF ARTS	170
SCHOOLS OF ARCHITECTURE—FIFTH SERIES :	
III.—SCHOOL OF ARCHITECTURE, MUNICIPAL SCHOOL OF ARTS AND CRAFTS, SOUTHEND-ON-SEA. By N. Martin-Kaye [F.]	171
ALLIED SOCIETIES :	
ESSEX, CAMBRIDGE AND HERTS SOCIETY OF ARCHITECTS	173
NORTHAMPTONSHIRE, BEDFORDSHIRE AND HUNTINGDONSHIRE ASSOCIATION OF ARCHITECTS	173
WEST YORKSHIRE SOCIETY OF ARCHITECTS	174
SOUTH WALES INSTITUTE OF ARCHITECTS	176
NOTES FROM MINUTES OF COUNCIL	176
STUDENTS R.I.B.A.	177
PROBATIONERS R.I.B.A.	178
NOTICES	178
COMPETITIONS	179
MEMBERS' COLUMN	180
MINUTES	180





TOWN HALL, CHAIL  
From a Pencil Sketch by John Keppie, A.R.S.A. [P.]  
(See page 265)



equipment of every well-trained architect, when also he could carry his sketch book down a country road without being smothered in dust or poisoned by petrol, when he could sit and work quietly in some famous old church without dreading the arrival every half-hour of a "rubber neck" tourist car which tumbles its load of sightseers out at the church door" for the inspection of the church and village."

The sketches are all dated September 1927, and were possibly made on a slightly belated summer holiday. The

or Town Hall at Crail, which, like the house with the crow-stepped gable in the drawing of the harbour, shows distinct traces of Netherlands feeling. The French influence so marked in much of the Scottish work seems to have been imported at a later date and used in domestic buildings of a more important type.

Crail was one of the first places in Scotland to have trade relations with the Continent, and its salt fish were sold in the Netherlands in the ninth century. Fashions in food change, but the Highland girls still follow the herring



ST. MONAN'S CHURCH

From a Pencil Sketch by John Keppie, A.R.S.A. [F.]

district chosen for exploration is the north-eastern part of the county of Fife, where the coast looks south-east across the Firth of Forth towards the Bass Rock. It is an interesting corner—St. Andrews of university and golf-links fame lies about ten miles to the south-west, while southwards is a number of little seaside towns stretching on till Queensferry and the Forth bridge are reached something over thirty miles away.

The sketch in the frontispiece shows the old Tolbooth

fleet southwards down the east coast every year, salting and packing the fish, and the auctions crowded with foreign representatives are still held for the sale of the herrings. Like most of Scotland, this corner is full of history. Robert Bruce granted its first charter to Crail in 1310, and the main lines of his organisation of the Town Council exist to this day. The church, which was founded at a date not later than the twelfth century, belonged to the Cistercian Nuns of Huddington, on the other side of the



Forth, and after passing through various troubles it was handed over to the burgh by James VI in 1587, and is still used as the parish church. The tower shown in Mr. Keppie's drawing suggests from its appearance that it might have been built as watch tower, as were many of the church towers along our eastern coast, and this is likely enough, seeing that it is built on the extreme point of the promontory, where watchers would catch a first sight of the invaders from the sea. Saint Monan's, the other

out, came hastily to Crail to petition the patron saint for his recovery. As the King stood, Scottish fashion, at his prayers in the little chapel, Saint Monan heard his invocation, the arrow of itself leaped out, and the King became a whole man again, in gratitude for which mercy he built the beautiful church which stands to this day. He got no farther west, however, than the central tower and transepts in his work. The King appointed a local worthy, Sir William Dishington, master of the works, who hired



CRAIL CHURCH

From a Pencil Sketch by John Keppie, A.R.S.A. [F]

church illustrated, also situated on the coast about seven miles higher up the Firth of Forth, is a building of exceptional interest. Tradition says that Saint Monan, an Irish missionary, was murdered by the Danes on the island of May at the mouth of the Forth, and his body was afterwards buried on the mainland and a chapel erected over it where the present building now stands. This was about the middle of the ninth century, and five hundred years later, it is said, King David the Second, mortally wounded at the battle of Nevill's Cross by an arrow which, caught by its barb in the wound, obstinately refused to come

a ship and loaded up with timber at Inverness, probably from the woods in the Black Isle. He off-loaded it at the site of the new church, a distance of well over two hundred miles. Presumably there were no roads good enough to allow of timber being hauled from any inland woods nearer at hand, and sea transport was the simplest and cheapest. The cost of transport for the three freights was £20, £10, and £7.17s. 8d., and one wonders how Sir William was able to cut down costs so successfully as time went on.

The drawings of the Town Hall and the Harbour at Crail suggest a quiet and pleasant seaside town with inte-



resting little streets and a sufficiency of trees. The cottages facing the harbour make a very pleasing and successful group, and one imagines each cottage with its little wooden triangle beside the door for drying the herrings. The buildings are of local material and follow the tradition of

their time. It looks as if it would be hard for an architect to find a more attractive centre for a quiet holiday.

In Mr. Keppie's charming sketches he has chosen the simplest means of expressing himself, pencil, without colour or wash, a medium excellently suited to his subject.



THE WATER TOWER, YORK.

Water-Colour Drawing by John Sell Cotman. Reproduced from "John Sell Cotman," By Sydney D. Kitson. By courtesy of the Publisher and the Owner, Edward Maish, Esq., C.B.

JOHN SELL COTMAN (1782-1842). By Sydney D. Kitson. 40. 1930. (Old Water Colour Society.)

This short monograph contains more research than many longer biographies and tells the story of Cotman's melancholy life. He is an artist whose fame has grown steadily since he died, helped no doubt by the strange affinity between his work in some of its phases and that of the great Japanese colour printers of whom he must have

been quite unaware. At his best he shares their power of grasping the essentials of a scene and rejecting everything else, and of putting it simply before you in flat washes. The coloured plate of "The Needles" and the splendid composition of "The Water Tower, York," show his gifts at their utmost. Mr. Kitson's enthusiasm for Cotman is well known, and the occasional words of criticism which he allows himself make one regret that they are so few.

F.R.I.B.A.

## Correspondence

### QUERIES AND REPLIES.

12 February 1930.

To the Editor, JOURNAL R.I.B.A.,

DEAR SIR,—In the "Queries and Replies" column a sentence by P. J. Waldram to the effect that "hardness as such has little or no waterproofing value," as applied to brick is rather striking, and it may be interesting to note in corroboration that I have found in this district where we have a good deal of whinstone, which is a hard basaltic stone, that damp rises by capillary attraction to an even

greater degree than it does in the average sandstone, and further that one of our quarries producing a hard and very weather-resisting sandstone absorbs water by capillary attraction much more freely than another sandstone which though not by any means so durable nor so hard, is of a closer and "woodier" texture.

May I say that with contributors such as you have available this "Queries and Replies" column promises to be a very useful feature in the JOURNAL? Yours faithfully,

G. REAVELL [F.].



## Acoustics of the Royal Academy

### CONCERTS AT THE EXHIBITION OF ITALIAN ART

BY ARNOLD SILCOCK [F].

Three evening concerts, arranged and directed by Mr. Anthony Bernard, are being held during the present Exhibition in order to illustrate the evolution of Italian music side by side with the flowering of the Italian genius in the sister arts of painting and sculpture.

Actually these concerts, arranged for 28 January, 18 February, and 3 March, and to be repeated at the Queen's Hall later, aim at a higher ideal than this, for they hope to bring about the happy reunion of a company of the noblest spirits of the Renaissance. There are few whose imaginations will not be stirred as they listen to the songs which Raphael loved, and the sonnets which Michelangelo wrote.

To house such a company the Mother of the Arts should have provided a masterpiece of Italian architecture, and though this was not possible, yet in the galleries of the Royal Academy have been discovered unknown and unsuspected virtues. The Main Gallery, in which the performances are being given, is happily a room comparable in scale, proportions and dignity with many of the noble rooms in the palaces of Italy. Like them, it was not built primarily for the delivery of lectures—not even lectures on the history of Italian music—nor for the performance of such early music, and there was a natural fear as to what its acoustic properties might be. This impression was reinforced by the knowledge that the walls were excessively hard and the floor composed of wood blocks laid on concrete. The height of the room, too, in proportion to its length, was greater than one would have wished, and this taken together with the lack of a flat ceiling and the presence of huge coves above the cornice, made one nervous of the result. A temporary flat ceiling above this cornice, formed of fibre-board on joists, and hung from the beams overhead, would have been an excellent corrective; but fortunately, it was not required.

Another cause for anxiety was the possibility that the vibrations in the picture glass, set up by the instruments, might damage some of the more ancient and delicate paintings and cause them to flake. Many of these paintings are on wood panels which have crumbled and become worm-eaten in the course of years, and in the case of earlier

works have another disadvantage in that the medium used is tempera, which, compared with oils, is not a permanent and cohesive substance.

It was fortunately discovered at the first rehearsal that all these fears were groundless. The acoustics of the galleries are so good that the adjacent rooms can be used as crush halls, and, as one walks through them, the distant strains of fine old church music recall the beauty of the same harmonies once heard echoing down the aisles of the cathedrals of Italy.

The plea that the glass might be shattered by vibration also proved groundless. No doubt if the thinnest Belgian glass had been used instead of the plate glass generously supplied by Messrs. Pilkington Bros., and if the orchestra, with its harpsichord and strings, had been replaced by a Guards' band with added brass and percussion instruments, the result might have been disastrous. Fortunately, too, the earliest and most fragile paintings on panel are not in the main Gallery, but in Gallery 1, while the former chiefly contains large canvases with the masterpieces in oils of the Florentine and Venetian schools.

There is no space to follow up the endless threads of the pattern of interest interwoven at this great Exhibition, but a few that are typical may be sketched in a word or two. While listening to the early church music it should be remembered that a vast contemporary choir-book, illuminated on vellum, stands in the South Room. Here also are the golden copes worn by the high officiating clergy, while in Galleries I and II are the altar pieces painted for them by the Masters of that day.

Sonnets by Leonardo and Cellini recall the bronzes and beaten silver in the South Room, the "Venus and Cupid," the "Warrior on Horseback," and the unrivalled collection of Leonardo's drawings in Rooms VIII and IX. The Viper of Milan, the coat of arms on that lovely glass in the South Room, also recalls this ill-fated Master's wasted work for the Milanese Duke Sforza, his patron.

These are but glimpses, but they serve to show the endless possibilities of this wonderful and unique exhibition.

## Charing Cross Bridge

### THE CONFERENCE REPORT

The following statement on the Charing Cross Bridge scheme has been prepared by the Thames Bridges Conference representing the Royal Academy, the Royal Institute of British Architects, the Surveyors' Institution, the Town Planning Institute, the London Society, the Architectural Association, and the Architecture Club; and has been circulated to all Members of Parliament:—

#### 1. GENERAL.

This is probably the most important and certainly the most costly scheme for a London improvement that has ever been

submitted to Parliament. The deposited plans show that it has been treated as a local problem only; it appears to have been drawn up on the assumption that the problem begins at Trafalgar Square and ends about St. George's Circus and that it is adequately solved by the provision of a bridge and of a site for a new station acceptable to the Southern Railway Company. In its present form the scheme would effectually stop developments that are of outstanding importance to London.

Many months ago attention was called to the wider aspects of the matter by the Greater London Regional Town Planning



committee, but there is no evidence that any notice was taken of the views of that very responsible body. In 1926 and again in 1927 the Royal Institute of British Architects pointed out to the Ministry of Transport, but to no purpose, that in addition to engineering and financial considerations there were many others that were fundamental and required to be dealt with at the outset.

Apart from larger considerations the following criticisms of the scheme itself are offered:—

#### II. COST.

Adequate recoupment would justify high cost, but the scheme does not secure it. Among the costly properties to be acquired the scheme involves the purchase of Coates's Bank, which is a large modern building on a very valuable site facing two streets. On the Surrey side the effect of starting unduly far back from the river is to increase the number of properties to be bought and the large amount of rehousing that has to be done. The construction, on the other hand, of an undue length of roads and viaducts still further inflates the cost.

A new railway station will occupy land on the river front that is potentially of immense value. The road leading to the bridge on the Surrey side will be almost entirely without sites for buildings. A great part of it has the flank wall of the station and the boundary wall of the railway against it instead of carrying a line of buildings between the road and the railway. The scanty sites provided are, in many cases, unfavourable because they occupy a steep gradient, or are too shallow for useful buildings.

There is great loss of what should be valuable frontage by roads being carried through tunnels. The lengths of these tunnels are the following:—

York Road	360 ft. long, 17 ft. high
Waterloo Bridge Road	405 ft. long, 17 ft. high
Exton Street	100 ft. long, 17 ft. high
Sandell Street	125 ft. long, 15 ft. high

Total . . . . . 990 ft. or 330 yards.

The actual loss of frontage is double this length, because it occurs on both sides of the roads. The above lengths are exclusive of the covered-over space 260 feet long by 80 feet wide and 18 feet high where the new Southern Embankment Garden passes under the new bridge. In addition to the actual tunnels referred to above, a footway bridge about 30 feet wide is shown to pass over York Road with a height of 17 feet above the road. This bridge is about 60 feet away from the road and railway bridge which passes over York Road. Although part of Belvedere Road is to be retained and widened, it is shown on the plans to be converted into a cul-de-sac, with access for vehicles from York Road only. There will be three flights of steps at the northern end of it, and two flights at the southern end, for foot passengers. The value of the frontages here must in consequence be very much reduced.

#### III. TOWN PLANNING.

The town-planning aspect of an undertaking such as this scheme in the heart of London is of supreme importance and ought to have received the fullest consideration from the outset; indeed it has been pointed out that the plan originally prepared by the Royal Commission on Cross River Traffic in London should have been submitted for general review to the Ministry of Health—the town-planning authority.

Attention is called to the lack of facilities for access and movement. Villiers Street disappears and Buckingham Street is closed. There will be no access to the bridge for vehicular traffic from the Adelphi district or from the Embankment. In driving from the Embankment to the bridge it would be necessary to go up Northumberland Avenue, round Trafalgar Square and also the new roundabout in the Strand, i.e., to cross the main east and west traffic route twice before reaching the bridge.

There is a great area of South London, adjacent to the river, extending from the railway at Blackfriars to Westminster Bridge Road, which entirely loses the use and value that its position offers, because it is cut up by the elevated railway constructions. This district could be made to give relief to the congestion in Westminster and the Strand if proper entry to it were secured.

The fullest possible measure of access would be given by putting the whole of the railway from London Bridge underground, and entry from Westminster would be secured at once by adopting as the site of the new station the position allotted to it originally by the Committee of Engineers, to whom the plan of the Royal Commission on Cross River Traffic was submitted by the Ministry of Transport. This site was adjacent to the Waterloo terminus, in the position of the present Waterloo Junction Station widened eastwards to give the space required for a terminal station. By adopting that position for the station and by bringing the new bridge to ground at York Road (as in the case of Waterloo Bridge) instead of carrying it on a high level past Waterloo Station, it would become possible to carry York Road through as an important open thoroughfare. The thoroughfare thus provided would be the direct route from Westminster to London Bridge Station by road.

This town-planning aspect is so important and urgent that on no account should any scheme of planning for a new bridge be adopted unless it gives the necessary access by setting the railway station farther back than shown on the official plan.

#### IV. TUNNELS.

The proper development of the district referred to above would result in an immense increase of land values over a very large area and the erection of important buildings. This can never come about so long as the elevated railway causes the roads to pass through tunnels. The road tunnels shown on the official plan are not only of very great length, but they are also very low; a height of 17 ft. only with a length of 405 feet in the case of the one through which Waterloo Road would go, and a similar height with a length of 360 feet in the case of York Road. These two tunnels are the most serious obstacles to the development of South London, but there are, in addition, two smaller tunnels adjoining that of Waterloo Road. On the Middlesex side the Embankment is shown to run under the bridge head with a height of 18 ft. only.

It has been pointed out above that road tunnels necessarily sterilise the length of road on which they occur in the sense of preventing buildings from occupying the road frontage, but the main effect of them is to discourage development and enterprise in the district to which they lead, and this is amply shown by the condition of the area between the river and the railway at the present time. The need for ventilation in tunnels receiving motor traffic cannot be ignored, and it presents great difficulties. If done artificially it involves great expense. Moreover, tunnels have obvious objections from the point of view of public amenity.

The tunnels themselves should be sufficient to condemn the scheme; taken in conjunction with the failure to open up the neglected district on the Surrey side, they furnish overwhelming reason for rejecting the official scheme and considering simpler, less costly, and better means of dealing with the problem.

#### V. TRAFFIC.

The Minister of Transport states that the traffic problem has had first consideration, yet the failure to meet the convenience of railway passengers is a defect in the project. The interchange of passengers and luggage between the two terminal stations, simple enough with the station on the site originally allotted to it by the Committee of Engineers, is awkward to the last degree, and the need for carrying suburban passengers to the neighbourhood of the Strand and beyond without changing carriages has been quite neglected.



It must be borne in mind that after the new station is finished and in use a period probably of as much as eight years—it will have no adequate access until the road bridge is complete—probably two years more. The bridge cannot be started until the station is in use.

#### VI. ARCHITECTURE.

The new bridge occurs in the neighbourhood of many of the most important buildings in London and on a stretch of river bank which gives one of the most beautiful city views to be found anywhere. The scheme, quite apart from the actual design of the bridge and its immediate approaches, should, therefore, be handled with the utmost care for dignity, planning, and composition. The lines of it should not be allowed to detract from the dignity of the Embankment or of the great curve of the river and the buildings facing it. As a matter of fact, on the Middlesex side, the angle of the approach road in relation to the bridge and the junction of the two prevent any possibility of fine architectural treatment at this point.

Many of the building sites are mean or ill-shaped, and the twist at the end of the south approach on a steep gradient, is most unfortunate. The lay-out lacks simplicity, balance, and directness.

#### VII. EMPLOYMENT.

The longer time required for preliminary operations under the official scheme as compared with one on simpler lines is a matter for consideration in relation to employment. It defers the time for beginning the work. On the other hand, the development of the district near the river referred to above by the adoption of a different plan should give employment on productive work for many years.

#### VIII. CONCLUSION.

All the five schemes put forward officially from time to time have had as their basis a viaduct carrying an overhead road between two points. In the first one these points were a mile and a quarter apart. This wholly undesirable feature forms the nucleus of the plan now presented to Parliament.

The Charing Cross Bridge is not only a question of bridge building; it is a large matter of town planning in which the bridge itself is an incident. On the solution of this problem great possibilities depend. The almost insuperable traffic difficulties of London to-day are due in large measure to piecemeal rebuilding. It is now fully realised that London lost its great opportunity after the Fire by failing to adopt the comprehensive plan prepared by Sir Christopher Wren. There is a danger at the present time of committing yet another mistake and by ill-considered planning of adding to the transport difficulties of the future.

#### THE INSTITUTE OF LANDSCAPE ARCHITECTS.

The first public meeting of the Institute of Landscape Architects was held on 11 February in the Lecture Hall of the Royal Horticultural Society, Greysted Street, S.W. The Institute has been formed to promote the study and general advancement of the art of landscape architecture and to serve as a medium for friendly intercourse between the members and others practising or interested in the art.

Mr. Thomas H. Mawson, the president, was unable to attend, and an address prepared by him was read by his son, Mr. E. Prentice Mawson.

In the course of his speech the President said he looked forward to the publication by the Institute of a quarterly or annual journal and the provision of proper and adequate facilities for the training of future landscape architects through the establishment of a school of landscape architecture at one of the universities, along lines somewhat parallel to those adopted at Harvard under the

late Professor Pray. Such a training must include a thorough grasp of the principles of design, a knowledge of engineering, and a wide knowledge of the geology of soils. The landscape architect must also be something of a sociologist, familiar with the problems relating to housing, municipal growth, town-to-town migration, the drift to the cities, and the still more perplexing drift back to the country in ribbon development. The Institute could render fruitful service by the establishment of an examination system so arranged as not only to give final approval and recognition to a successful training, but sympathetic oversight of the studies of the pupil from the time he left school or university till he launched out on his professional career.

#### ROYAL SOCIETY OF ARTS.

Particulars of the Seventh Annual Open Competition of Industrial Designs to be held at the Imperial Institute, South Kensington, London, S.W., in June 1930, have now been issued, and can be obtained from the secretary of the Royal Society of Arts, John Street, Adelphi, London, W.C.2. Intending competitors must apply to the secretary of the Society between 1 May and 10 May for the necessary entry forms, the last day for receiving entries being 26 May. The designs will be received at the Imperial College of Science and Technology, Imperial Institute Road, S.W., between 11 and 13 June. In all Scholarships and prizes amounting to nearly £1,900 are offered in connection with the 1930 Competition.

A Prize of £25 is offered for designs for the decoration and furnishing of a dining room in a small modern suburban house; and a Prize of £20 for a set of black-and-white drawings of architectural subjects. Three Scholarships will also be awarded: A Travelling Scholarship of the value of £100 in the section of architectural decoration or textiles offered by Mr. James H. Hyde; a Travelling Studentship of £75 offered by the Tootal Broadhurst Lee Company for designs suitable for weaving or printing intended for dress or furnishing materials; and the Art Congress Studentship of £50 for practising craftsmen or designers, founded by the late Sir William Cuthbert Quilter.

Valuable prizes ranging from £5 to £50 are also offered in the various sections.

In the Architectural Decoration Section the prizes will be given for designs for a Metal Screen for a small Church; a Glazed Screen for a Fashionable Hotel; a Wrought Iron Entrance Door for a West End Shop and a Metal Staircase Window; a Fireplace; an Anthracite Stove; Tiles or Faience Surround for a Wood Mantel Opening; an Electric Light Fitting; and a Wooden Litany Desk.

#### THE GARDEN CITIES AND TOWN PLANNING ASSOCIATION.

The Garden Cities and Town Planning Association have arranged their tenth housing and town planning tour. This year the northern capitals of Europe will be visited: Oslo, Stockholm, Copenhagen, Hamburg. The tour starts from London on 3 June and returns on 14 June, and the cost is £39 per person. Particulars may be obtained from the Secretary, Garden Cities and Town Planning Association, 3 Gray's Inn Place, W.C.1.

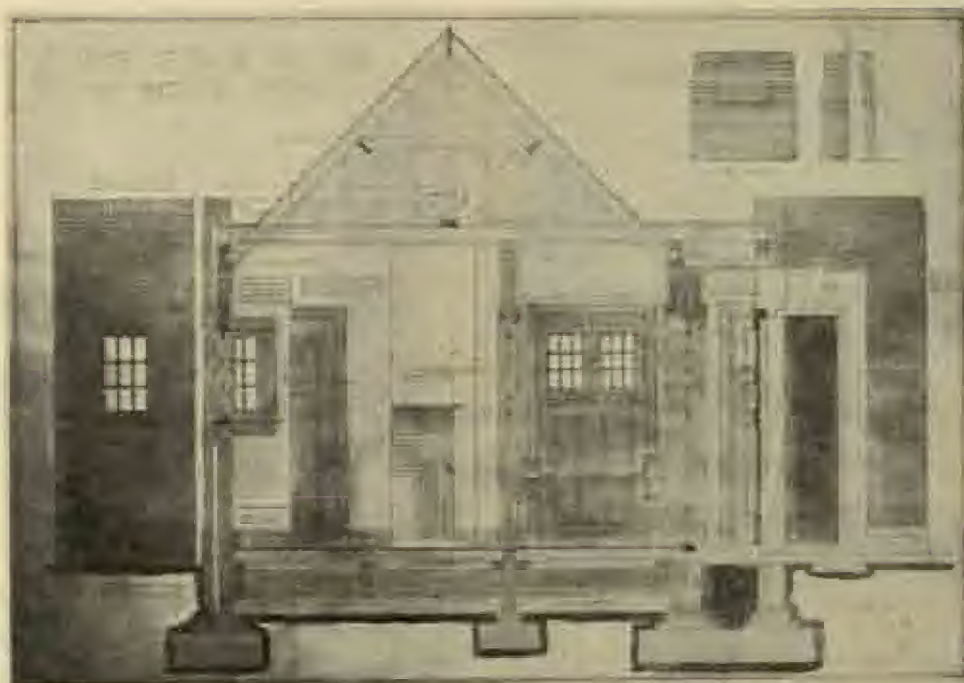


# Schools of Architecture

## FIFTH SERIES

### III.—School of Architecture, Municipal School of Arts and Crafts, Southend-on-Sea

BY N. MARTIN-KAYE [F.L.]



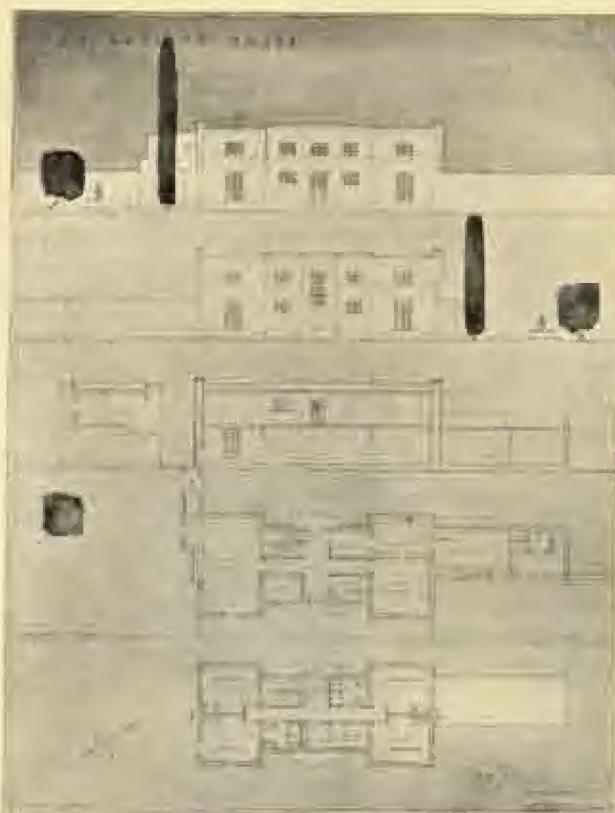
CONSTRUCTION STUDY. C. E. Goodworth, Second Year Intermediate Course  
School of Architecture, Municipal School of Arts and Crafts, Southend-on-Sea

IT was not until seven years ago that the definite idea of building up an architectural section in this School of Art materialised. Architecture had been taught, together with those subjects usually found in the syllabus of a School of Art, but not from the more professional point of view. In order, however, to make the school fit the needs of a large and rapidly growing town in which the building crafts were amongst the chief activities it was decided to increase the scope of the work and enlist the services of a qualified architect as a lecturer and demonstrator on the staff. The Southend School of Art possesses one of the largest junior art departments in England and this department may be rightly termed the backbone of the School. Students of both sexes are

admitted by careful selection from the elementary and other schools in the Borough for a full-time course of three years. The aim of this Department is to provide continued education of an advanced type for boys and girls who show a special bent towards creative and inventive activities. General educational subjects are continued under the supervision of graduate teachers for approximately half the school time. The remaining time is occupied by studies of a practical and vocational nature under the control of a highly qualified staff.

This system of training, both educational and graphic, proved itself invaluable when linked with the more advanced forms of architectural training. Here the thorough training in art subjects, including a grounding





DESIGN STUDY: AN ARTIST'S HOUSE  
R. J. May, Third Year Intermediate Course  
School of Architecture, Municipal School of Arts and Crafts  
Southend-on-Sea

in practical geometry, perspective and lettering, exercises in representative drawing and the study of light and shade, together with exercises in pattern design and the use of colour, formed a fertile groundwork for later activities in architectural study. The School is, however, in the experimental stage and a solution has still to be found for the problem of providing sufficient general education apart from artistic training to equip the architectural student for a fuller comprehension of his future professional work.

Besides being fed from the Junior Art Department, the School draws its students from the Secondary Schools in the Borough.

The Essex, Cambridge and Hertfordshire Society, through the Southend Chapter in particular, is closely interested in the progress of the School and the system of training provided, and the Governors, through the Education Committee, have set up an Advisory Committee to advise them on the general conduct of studies.

Furthermore, a panel of visiting architects has been convened whose duties will be to visit the school from time to time and give advice and criticism, from the professional

point of view of the exercises carried out. This has been thought necessary to check any lapse into pure academical treatment and to ensure closer touch with the practical problems of everyday practice.

At the present moment the existing building is far too small for adequate development, and until this defect is remedied the activities of the School must necessarily be restricted. This being the case it has been considered more feasible to concentrate on a policy of ensuring for every student a thoroughly efficient grounding. Besides working out problems in the studio the students are expected to undertake a certain amount of practical work, such as stone cutting, brickwork and modelling. This is amplified by visits to buildings in progress of erection. It is realised that first hand knowledge of materials cannot be acquired too soon and the instruction given in this practical way has been found beneficial to the students in the later work of the studio. Surveying is also undertaken in the summer months and this paper is included in the Internal Intermediate Examination.

In the first year students are occupied with acquiring the first principles of construction allied to simple design subjects. No copying of any kind is permitted, the instruction being given by blackboard demonstration. Freehand colour sense training is a subject of particular study, also perspective, and this last not necessarily pure architectural perspective.

In the second year the Orders are studied, together with their application and slightly more advanced subjects in design; quick time subjects and set lectures on architectural theory and history are given and are compulsory to all students of the year. A paper on architectural theory is included in the Internal Intermediate Examination. The third year is occupied with planning and design generally.

All students, in addition to a general educational test, are expected to pass the School Entrance Examination.



STUDY OF CLASSIC ELEMENTS  
L. C. Stuart, Fourth Year Junior School  
School of Architecture, Municipal School of Arts and Crafts  
Southend-on-Sea



Papers are set in the following: English Essay (critical analysis), Observation Test, Colour Test, Freehand drawing from cast and outdoor sketch, in perspective. No exemption whatever is granted from this portion of the examination, as it is considered of the utmost importance to make careful selection of students seeking admission.

As stated before, the School is yet in its infancy and cannot hope to compete with other Recognised Schools of longer standing and greater facilities, but with the building up of a solid foundation both in syllabus and ideals and gradual equipment there is no reason why the School should not hope for prosperity and enhanced effectiveness in the future.

## Allied Societies

*(The attention of Members of the Allied Societies is particularly called to this page)*

### ESSEX, CAMBRIDGE AND HERTFORDSHIRE SOCIETY OF ARCHITECTS.

(SOUTHEND CHAPTER.)

A meeting of the Southend Chapter of the Essex, Cambridge and Hertfordshire Society of Architects was held at the School of Arts and Crafts on Wednesday evening, 5 February. The Chair was taken by Mr. George F. Grover, who, in opening the meeting, reminded members that an Exhibition of Alfred Stevens Drawings would be held at the School of Arts and Crafts from 10 to 15 March, when he hoped that everybody would take this opportunity of seeing this collection.

Mr. A. M. Drysdale then addressed the meeting on the Law of Lights in relation to buildings and gave an extremely interesting paper tracing the different alterations in the law regarding rights of light from the dim and distant ages up to the recent decisions of the courts. He emphasised the fact that the law on this matter was not satisfactory, although it had greatly improved in recent years but that at the present time the Law Society and the Royal Institute of British Architects were endeavouring to frame a new Bill to put before Parliament which would at any rate alleviate some of the hardships which fall upon a landowner who is surrounded by property where owners have acquired rights of light over his land.

A discussion took place at the end of the address.

Mr. P. G. Hayward moved a vote of thanks which was seconded by Mr. Martin-Kaye.

### NORTHAMPTONSHIRE, BEDFORDSHIRE AND HUNTINGDONSHIRE ASSOCIATION OF ARCHITECTS.

A dinner arranged by the Northamptonshire Committee of the Northamptonshire, Bedfordshire and Huntingdonshire Association of Architects was held at the Angel Hotel, Northampton, on Saturday, 1 February, when about 50 members and friends were present.

The President, Mr. R. J. Williams, F.R.I.B.A., was in the chair, supported by the Mayor of Northampton, Mr. Cecil Malone, M.P., Mr. Ian MacAlister, M.A., Colonel John Brown, C.B., A.R.I.B.A., Lieut.-Colonel J. W. Fisher, F.R.I.B.A., Major B. C. Deacon, F.R.I.B.A., and Messrs. W. E. Cookerill (Northampton Master Builders), G. W. Brown (Wellingborough Master Builders), F. H. Allen, A.R.I.B.A., H. P. Shapland, A.R.I.B.A., H. Norman, F.R.I.B.A., C. Croft, F.S.I. Others present included Major Haugh, John Murray, F.R.I.B.A., A. E. Henson, C. H. Dorman, A.R.I.B.A., G. H. Lewin, L.R.I.B.A., T. E. Jeffery, H. R. Surridge, C. R. Crumpton, L. Parkin, F. Appleton, C. S. Mordaunt, H. D. Williams, R. P. Cook, P. E. Culling, F. B. Allen, H. C. R. Frost, P. J. J. Panter, E. L. Ives, F. J. Smith, L. S. Derby and S. V. Goodman.

Mr. C. Malone, M.P., in proposing "The Royal Institute of British Architects," referred to the antiquity of the profession of the architect, and then went on to say that they were badly in need of good architects at Westminster. The Parliament buildings were crumbling away, and something like two or

three million pounds would have to be spent upon the restoration of the buildings. He would like to see them rebuilt on more modern and business-like lines.

Mr. Malone also referred to the Architects' Regulation Bill, and said he saw the need of a profession such as theirs placing itself on a statutory footing not less important and not less safeguarded than that of a doctor or lawyer, and he hoped that they would achieve their object.

Mr. Ian MacAlister, M.A., in reply, said that for some time the idea had been growing that the professions should have statutory regulation and organisation. He hoped that if they had anything like luck in the ballot at the House of Commons their Bill would soon become law.

The Mayor of Northampton, in proposing "The Association," said he could imagine that members of their Association had some small grievances against the Corporation for not giving the fullest opportunity not only to local architects, but those from a wider area to submit competitive plans for important building works undertaken by the Corporation. He was bound to say that he had sympathy with that grievance if they felt it. The Corporation had built many hundreds of houses which, on the whole, were a credit to the borough, but he had often said, and he repeated it, that in the first instance, when these properties were built, it would have been wise to give local architects the opportunity to submit plans, and he thought that in many cases the houses would have been of better design and more beautiful in construction than they were to-day.

In saying this he wanted it to be clearly understood he was not reflecting upon the excellent service rendered by architects and others in the Borough Engineer's Department.

Major B. C. Deacon, F.R.I.B.A., in replying to the toast, said he wished the Mayors of all boroughs felt as the Mayor of Northampton did in regard to architectural work of a public character. After all, a Borough Engineer's Department should not trespass upon what was purely architectural work, and a matter for very special training. It was all very well to bring in young men straight from architectural schools and ask them to design Council schools and Council houses and so on, but he thought it was encroaching on the legitimate work of the trained architect.

Colonel John Brown, C.B., A.R.I.B.A., in proposing "The Visitors," said that, whatever disputes there were in other parts of the country, he felt that the good relations which existed between the architects and builders in their district would be unimpaired.

Mr. H. P. Shapland, A.R.I.B.A., in response, said that if it were right for a Borough Engineer to undertake the legitimate work of architects, why should there not be an extension of the principle? The Borough Engineer might, for example, also be the municipal dentist, and there was some merit in that suggestion, because the patient who had not paid his rates would not have anaesthetics. Why should he not be the municipal boot-maker? He (the speaker) could imagine the howl of derision that would go up if it were suggested that a man whose profession was entirely different should be put in charge of boot manufacture in Northampton. The thing was literally in-



credible, but that was what happened in the architect's profession. The architects in that area did not fear competition. In the design of public buildings, local patriotism should impel them to get the best man to do the job.

Mr. L. Duckert also replied.

Lieut.-Col. J. W. Fisher, F.R.I.B.A., proposed the health of the President and the Hon. Secretary, and they both replied.

The Annual Meeting of the Northamptonshire, Bedfordshire and Huntingdonshire Association of Architects was held at Northampton on 5 February, when the following officers for the year were elected:—

*President:* Major B. C. Deacon, F.R.I.B.A., Luton. *Vice-Presidents:* F. H. Allen, A.R.I.B.A., Northampton; W. B. Stonebridge, F.R.I.B.A., Bedford. *Council:* Lieut.-Col. J. W. Fisher, F.R.I.B.A., Wellingborough; J. A. Gotch, F.R.I.B.A., Kettering; S. F. Harris, F.R.I.B.A., Northampton; H. Haines, A.R.I.B.A., Bedford; W. A. Lee, L.R.I.B.A., Huntingdon; J. Murray, F.R.I.B.A., Luton; H. Norman, F.R.I.B.A., Northampton; W. H. G. Hubbard, L.R.I.B.A., Luton; R. J. Williams, F.R.I.B.A., Kettering. *Honorary Secretary and Treasurer:* C. Croft, L.R.I.B.A., F.S.I., Northampton. *Honorary Auditor:* J. A. Piccaver, Northampton.

#### WEST YORKSHIRE SOCIETY OF ARCHITECTS.

A meeting of the West Yorkshire Society of Architects was held at its Leeds headquarters on 30 January, when the President, Mr. G. H. Foggitt, occupied the chair.

A lecture on "Scottish Castles" was given by Mrs. E. M. W. B. Hughes, A.R.I.B.A., of Glasgow.

Mrs. Hughes said:—

Of the type of Scottish house prior to the Norman Conquest I shall not speak. There are many interesting remains to be found in many parts of Scotland, but the subject would require an evening to itself. I therefore propose to start with the houses, or, strictly speaking, the castles which were built in the thirteenth century.

There are no actual Norman castles in Scotland, but they undoubtedly formed the model for those that were built in the reigns of Alexander I and David I. Scotland at that time was exceedingly prosperous, more so than it was in later times, and many of the nobles saw fit to build themselves large and powerful domains, which were primarily built to keep the more unruly tribes of the North and West in check. These castles recall the larger castles of France and England, such as Château Gaillard, Loches, in France, and Conway and Carnarvon in England.

As an example of a castle of this period I have taken Bothwell, Lanarkshire, which was not only one of the finest but is also one of which we have extensive remains to-day. Other castles of the same period are Lochindorb, Elginshire, Loch-an-Eilan, Inverness-shire, Dunstaffnage, Argyllshire, Kildrummie, Aberdeenshire.

Turning now to Bothwell, the plan shows that the main idea of the castle was defence—defence such as could be gained from massive walls. First there was a great courtyard, more or less rectangular, and surrounded by a massive curtain wall, sometimes 40 ft. in height, with round towers at the corners and machicolated cornice on the top. This was called the "great wall of enceinte." Outside this wall was a moat with a palisade beyond. Entering the wall of enceinte one arrives inside the courtyard or bailey, which in its turn was sometimes divided into two, with a further palisade and moat which came just in front of the donjon or keep. This was a round tower, larger in diameter than the other towers and with exceedingly massive walls, but situated on the edge of the wall of enceinte. It was the main part of defence of the castle and the centre of life, and in it on the ground floor was placed the well, the most important feature. No door communicated with this, entry

being on the first floor and by means of a wooden drawbridge which could be pulled up had the enemy gained possession of the bailey.

In the great hall the lord of the castle, his family and retainers lived and slept. Sometimes there was a separate small room for the lord himself, but generally speaking the entire inhabitants of the castle lived in the great hall. Above the hall, which was lofty, was a room for the garrison, and above this a roof covered with stone slabs and the embattlements from which the garrison could shoot out at the approaching enemy. The machicolated cornice greatly assisted the destroying of any enemy which should attempt to scale the walls, for boiling tar, pitch and stones could be poured down its openings. As a means of protection from an attacking enemy these castles must have been most effective, but from the point of view of comfort and luxury they left everything to be desired. They must have been draughty and cold in the extreme, the windows were too small to let in warmth from the sun and too big to keep the cold winds out. Furniture did not exist, with the exception of a chair for the lord, trestle table and benches for the others. Heather and straw strawed about the floor served for beds and the clothes were only skins of animals. Garde-robes existed in the thickness of the walls, and indeed Bothwell shows evidence of a most interesting method of flushing the floors of these, otherwise rules of hygiene were non-existing. Life must have been crude in the extreme. I have said that generally speaking the castles of this period formed an irregular triangle, but there are a few notable exceptions, such as Roxburgh which is circular, and Caerlaverock, which is triangular. Caerlaverock Castle is situated on the shores of the Solway, seven miles from Dumfries, and must have occupied a very important site. It is situated on marshy ground and is surrounded by a moat with but one vulnerable spot and this is protected with a rising mound of earth. In its present form, the castle is the work of six distinct periods, indeed only a small portion of the great triangular walls belong to our present period. We can very easily trace the wall of enceinte, triangular in shape and probably with round towers at the corner, the donjon or keep being at the apex of the triangle. The exact shape is a little difficult to follow owing to the two round towers with the entrance and portcullis room between them, which was built in front during the second period. The other rooms we see on the slide all illustrate the gradual change which came about in the later castles as times changed and the habits of the people became more civilised.

These great castles, with their powerful masonry and their feeling of strength and security, all show that Scotland at this period must have been a most prosperous country, but, alas! the War of Independence brought a change and at the end of it the country was absolutely exhausted and barren, and while Alexander I and David I had encouraged the nobles to build themselves powerful castles, King Bruce was against this policy. He held that while a powerful castle was a help to a country provided it remained in the hands of the Scots, if it fell into the hands of the enemy it often became difficult to dislodge him and the castles then became a source of danger. He considered that a simple strong tower or keep was all that was necessary, and so we find that in place of the former large castles, with their big wall of enceinte, a simple square-keep based on the Norman keep so frequently erected in England became the fashion. In most cases it was a square block with no projections and surrounded with a low wall which merely formed an outer courtyard. Internally the arrangement was stores or donjon on the ground floor, the great hall on the first, reached by a straight flight of stairs in the thickness of the wall, above this an upper hall with perhaps a private room and above that again the garrison. It was not long before the owners began to feel the inconvenience of their cramped accommodation, and we find evidence of efforts being made to increase the accommodation, giving thereby a slightly higher standard of comfort but, at the same time, in no way impairing



the castle from the defensive point of view. Keeps began to be built with a small wing attached forming an "L" shape instead of a square. Sometimes there were two wings attached at diagonal corners making a "Z" shape and sometimes a "U." Drum Castle, Aberdeenshire, and Clackmannan Tower, Clackmannan, are two examples of castles of this period. In some cases they had unadorned corners, some merely formed with bold corbels. Some had open battlements at the corners, some simple rounded mouldings, but all had simple plain walling on the ground floors and the windows were very small.

Borthwick Castle, Midlothian, illustrates very plainly how greater accommodation was gradually provided. This time the keep has two wings and it was placed more or less in the centre of the courtyard, the wall going completely round and not being attached to the keep itself as in earlier examples. The greater accommodation takes the form of more private rooms, a kitchen and offices, a wine cellar, a chapel, etc. The walls are still a tremendous thickness with spiral staircases contained in them. Windows are still small to the outside, but have attractive seats formed at their sides in the interior. Hall and kitchen have immense fireplaces and their roofs are vaulted, while the stone sink and drain, a not uncommon feature in Scotland, was found in the kitchen. There was a small pantry and serving window in the kitchen, forming what in England was called the screens, over which was the minstrels' gallery. An ornamental basin and canopy in the screens is a very unusual feature in a Scottish castle, and indeed there are many features in Borthwick which point to the owner having had ideas in advance of his country, which is not altogether surprising when we read of Lord Borthwick's imprisonment for many years in English castles. Gradually as times became more settled and the country got a little richer, the nobles became more and more dissatisfied with their cramped quarters, and so it became the fashion to cluster a whole collection of buildings right round the keep, forming in many cases an inner courtyard. Of such a type is Craigmillar, near Edinburgh, an important castle and a favourite residence of Queen Mary. I should like to quote here a short description of the interior of a castle such as we are now examining and which I get from Mr. John Warwick's book "Domestic Life in Scotland."

"Arrived at one of these strongholds in the dusk of a winter afternoon, we are led up a winding stone staircase by a retainer swinging a horn lantern. On the first floor is the great hall, an apartment some 30 feet long or more, in which the evening meal is about to be served. On one side a great fire of turf and peat burns in the wide fireplace . . . a lad stands holding a metal basin, and the guests wash in turn, water from a laver or ewer being poured over their hands by another servant. A long narrow table is set across one end of the room, and at this the principal persons, some six or eight in number, take their seats with their backs to the wall. This table is known as the 'big burde,' and it stands on a dais some inches higher than the rest of the floor, being reserved for the use of the more important guests. On the wall behind is a piece of tapestry or a simple hanging of coloured worsted. The lord of the castle sits in a high-backed chair in the middle, and if he observes great state there may be a canopy suspended from the ceiling above his seat. On his right and left are the guests, seated on benches provided with loose cushions, and sometimes with 'hancours' of tapestry or other woven material. The less important members of the household are seated at side tables, and they, too, have their backs to the wall, so that the opposite side of each table is left free for service from the middle of the room. All those seated at the meal have their heads covered, the ladies, according to Scottish fashion, wearing kerchiefs draped from a high structure of real or false hair in the form of two horns . . . Only the servants are uncovered . . . The division of the table into 'above and below the

salt' is not a medieval one, for those who were socially inferior sat at separate tables. Pewter dishes were in fairly common use, but even in many important Scottish houses the old wooden trenchers were not yet displaced . . . Knives are seldom mentioned in early inventories, because it was customary to use the knives which men carried about with them for general use. Forks were unknown, and food was carried to the mouth by the fingers. Politeness required that only three fingers, that is, two fingers and the thumb, should be used in handling food."

While many castles were built on the lines I have just described, a new type of plan developed at the beginning of the fifteenth century. This consisted of a keep and other buildings, but instead of these buildings being clustered round the keep itself, they were placed against the wall, thus forming more or less a quadrangle. Of such a type is the massive castle of Doune, built about 1400-1424. The keep, as I said, still existed, but it was on quite a different plan from the simple Norman square. It was larger and had increased accommodation on each floor. It had towers attached, built both for defensive purposes and to give further accommodation; in fact, it was a complete commodious residence. The other buildings, surrounding the courtyard and forming what eventually became a quadrangle, were reception rooms, banqueting halls, chapel, stateroom for visitors, kitchens, etc. This style of castle marks a distinct period in the history of Scottish architecture, beginning with the commencement of the fifteenth century, and ending with the death of James in 1542. Practically all the large castles, such as Doune and the Royal palaces at Stirling, Falkland, Holyrood and Linlithgow, were built in this style, though again, in each case, as times progressed and greater ideas of refinement and comfort found their way into the country, they left their mark on the various buildings. Artillery having come into existence and times being more peaceful, the defensive features died away, though not completely. In Stirling we see very distinct traces of a connection with France, and particularly of the influence of the Italian workmen at Fontenbleau. Again, at Falkland there are very distinct Renaissance details found on one of the façades, while at Linlithgow we feel we have almost passed into another period, with its strongly marked string courses, its internal corridors suggesting internal communications, its wash windows, etc. With regard to the internal furnishings, while these have undoubtedly become richer and rather more luxurious, it is not in the houses of the nobles proper that we find the greatest advance in the fashions of furniture, but in the homes of the burghers. These burghers, who had gradually been growing in wealth and power, were responsible for the introduction of many new ideas and new pieces of furniture. In their constant comings and goings on the continent, they would see manners and customs which reflected a higher standard of living and greater refinement than that which prevailed in their native land. Looking through old inventories we come across references such as the following from the inventory of Francis Spottiswood, a cloth merchant: "Ane hingand brod of oley callouris." "Ane fluit knob with ane wallnar (walnut) outgilt." "Syllit chalmers," etc., etc. Even as late as 1622, John Rae, an Englishman, wrote: "In the most stately and noble houses in great towns, instead of ceiling they covered their chambers with fir boards nailed on the roof withinside." This faulty fashion may be seen to this day in some of the important Scottish castles. The walls of the rooms were hung with panels of "petit point" hangings, and there is reference in various documents in connection with Queen Mary and James VI of tapestries which were evidently hangings of considerable size.

The death of James V, however, brings this third period to an end. During Mary's reign, comparatively little was done. The approach of the Renaissance is constantly foreseen, and as a greater understanding of this new style was arrived



at, its effect was more and more felt. Perhaps the use of gunpowder had, however, a greater change than any on the designs of the castles. No longer was it possible to build a castle the walls of which could be made strong enough to resist the new artillery. The nobles had, therefore, to build houses whose site could be a defence, and to be content with erecting buildings that could resist a short sudden attack. The idea of withstanding a long siege was completely given up. Along with the effect of gunpowder on the design of the castles must be taken the tremendous upheaval caused by the Reformation. The country, suddenly released from the great drain of money which had been sent yearly to Rome, began to take on a very much more prosperous character, and many of the lands of the clergy passed into the hands of the nobles as gifts from the King. These nobles, finding themselves wealthy, decided to build themselves new houses, and so we come to the fourth period of Scottish domestic architecture.

These nobles having received their wealth from the hands of the King, occupied more the position of courtiers than the old feudal landlords, and this fact is reflected when we examine the accommodation required in the new castles. The mediæval hall became out of date and was replaced by a family dining-room. The kitchen had to be removed farther from the owners' portion of the house. Drawing-rooms, parlours, studies began to be introduced, and privacy of the upper bedrooms was provided by a separate access to each by turret stairs instead of one room leading out to another. The windows became larger and the interiors became more elaborate. Decorated walls, often panelled with wood, and ceilings covered with elaborate plaster ornament came into fashion. The increased accommodation was got by greater height to the main buildings and the reduction of the height of each floor. The military features gradually lose their military significance. For example, the open battlement is now roofed with a conical roof, while there is also a multiplicity of corbel turrets and projections of all kinds. Ornamental tops to the dormer windows became a feature, while the chimneys are gathered together, suggesting the forerunners of classical stacks. "Corbie" steps are often introduced to the steep pitched gable roofs. In other words, all the picturesque details that are suggested to the mind by the term "Scottish Baronial" came into full swing. An advance was also made in furniture, and many of our modern pieces were introduced, such as chairs for every one, round tables, all kinds of beds, the trek bed, the laval rymmand bed and the tourposter, cupboards, cabinets, etc. Jacobean and Dutch ornament is found in many places, sometimes the work of the foreign workmen, but more often done by native carvers from illustrations out of books. All this foreign detail points to the traditional style of building being gradually swallowed up by the arrival of the full fledged Renaissance work.

I have attempted to give a brief account of the growth of the Scottish castles, the principal features of which are more easily seen and recognised in the bigger and more important castles, but to my mind it is in the lesser buildings that the charm of this style of architecture is found. The old picturesque building with its turrets, corbie steps, and fine robust mouldings round the jambs, perched on the top of some rock or nestling in some low-lying glen, with a garden in the foreground—it would be difficult to imagine any building more in accord with its natural surroundings.

#### THE SOUTH WALES INSTITUTE OF ARCHITECTS CENTRAL (CARDIFF) BRANCH

Mr. H. Norman Edwards, Chairman of the South Wales Institute of Architects Central (Cardiff) Branch, presided over a large gathering of architects and friends at the Annual Smoking Concert held at the Domino Café, Queen Street, Cardiff, on Thursday, February 6.

An excellent programme was arranged by Mr. Fred Stibbs,

interesting items being contributed by Mrs. A. J. Hallam, the Rhaybina Players and Mr. Dixon.

Among those present were Mr. T. Alwyn Lloyd, F.R.I.B.A. (President of the South Wales Institute of Architects) and Mrs. Lloyd, Mr. J. H. Jones, F.R.I.B.A. (V.P. South Wales Institute of Architects), Mr. G. R. H. Rogers, L.R.I.B.A. (Hon. Secretary, Western Branch of the South Wales Institute of Architects), Mr. W. R. Hewitt (President of the Cardiff Master Builders' Association), Mr. Percy Thomas, F.R.I.B.A., and Mrs. Thomas, Mr. Ivor Jones, A.R.I.B.A., Mr. Harry Teather, F.R.I.B.A., and Mrs. Teather, Mr. Pugh Jones, F.R.I.B.A., Mr. and Mrs. A. J. Hallam, Mr. R. H. Winder, M.A., F.R.I.B.A., Mr. J. Williamson, A.R.I.B.A., and Mrs. Williamson, and Mr. W. S. Purchon, M.A., A.R.I.B.A. (Hon. Secretary, South Wales Institute of Architects, Central Branch).

#### NOTES FROM THE MINUTES OF THE COUNCIL, 6 January 1930.

##### R.I.B.A. PRIZES AND STUDENTSHIPS.

The Council approved the Annual Award of the R.I.B.A. Prizes and Studentships submitted by the Board of Architectural Education and appointed the Juries for the Prizes and Studentships for 1930-31.

##### R.I.B.A. PRIZES FOR PUBLIC AND SECONDARY SCHOOLS.

The Council approved the recommendations of the Board for the Award of the R.I.B.A. Prizes for Essays and Sketches open to scholars of public and secondary schools.

##### THE PUGIN STUDENTSHIP, 1929.

The Board reported that they had approved the drawings and report submitted by Robert H. Matthew, Pugin Student 1929, as a result of his tour.

##### THE R.I.B.A. ESSAY MEDAL.

The Council approved the following recommendations of the Board:—

- That in future candidates be required to submit the title and a brief description of the proposed scope and treatment of the subject chosen for the approval of the Jury.
- That a clause be added to the regulations for the Prize to the effect that if the subject of an Final Examination Thesis is submitted for the Essay Prize it must be in essay form and not merely examination work re-submitted.

##### THE R.I.B.A. (ALFRED BOSSOM) TRAVELLING STUDENTSHIP: REGULATIONS.

The Council approved certain recommendations of the Board for the revision of the regulations for the R.I.B.A. (Alfred Bossom) Travelling Studentship.

##### ADVISORY PANELS.

The Council passed a resolution in favour of the principle of the resolutions proposed by the South-Eastern Society of Architects for inclusion in the Bill on the Preservation of Rural England which is to be introduced by Sir E. Hilton Young, M.P.

##### ORIGINAL DRAWING BY MR. EDMUND H. NEW (Hon. A.R.I.B.A.).

On the recommendation of the Literature Standing Committee the Council have purchased a delightful original drawing of "The City and Port of London," by Mr. Edmund H. New (Hon. A.R.I.B.A.) for addition to the R.I.B.A. Collection.



## THE ROYAL SANITARY INSTITUTE CONGRESS, 1930

The Council have appointed Mr. Henry V. Ashley (Vice-President) and Mr. H. D. Searles-Wood [F.] as the R.I.B.A. delegates at the Royal Sanitary Institute Congress to be held at Margate from 21 to 28 June 1930.

## THE BRITISH ENGINEERING STANDARDS ASSOCIATION.

The Council have been informed by the British Engineering Standards Association that Mr. J. Ernest Franck [F.] has been co-opted as a member of the Council of the Association to represent the R.I.B.A.

## THE COURT OF GOVERNORS OF UNIVERSITY COLLEGE, HULL.

Mr. John Bilson [F.], the R.I.B.A. representative on the Court of Governors of University College, Hull, has submitted a copy of the Third Report of the Governors.

## CHRISTMAS HOLIDAY LECTURES FOR BOYS AND GIRLS.

The Council passed a very hearty vote of thanks in favour of Mr. Humphrey Pakington [A.] for the very successful lectures which he gave during the recent Christmas holidays.

## THE LATE DR. KINGO TATSUNO (TOKYO).

The Council were informed that the Committee of Commemoration of the Life-Work of the late Dr. Kingo Tatsuno, of Tokyo, had kindly presented a number of architectural plates to the Institute illustrating Dr. Tatsuno's work.

The Council passed a cordial vote of thanks in favour of the Chairman and Members of the Committee.

## THE LONDON BUILDING ACTS COMMITTEE.

The following members were appointed to serve on the London Building Acts Committee:

Mr. W. Campbell Jones [F.].  
Alderman William Hunt [F.]

## THE SALARIED MEMBERS COMMITTEE.

The following member was appointed to serve on the Salaried Members Committee:—

Mr. J. Douglas Scott [A.].

On the recommendation of the Salaried Members Committee it was decided to insert a notice regularly in the JOURNAL and KALENDAR to the effect that members contemplating taking up appointments abroad should communicate with the Secretary, R.I.B.A., who would supply them with any available information.

## SUGGESTED NEW CLASS OF RETIRED MEMBERS.

The Council approved recommendations of the Executive and Finance and House Committees for the establishment of a new class of Retired Members. Full particulars of the Council's proposals will be published in due course.

## MEMBERSHIP.

*Election, 3 February 1930.*—Nominations for membership were approved as follows:—

As Hon. Associate . . . . . 1 application.  
As Fellows . . . . . 12 applications.  
As Associates . . . . . 7 applications.

*Reinstatement.*—The following ex-members were reinstated:—

As Fellow: C. J. Smithem. As Associates: A. V.

Booker, A. C. Fliteroft, E. Scott-Nicholson. As Licentiates: David Ditchburn, F. E. Halford, J. B. L. Tolhurst.

## APPLICATIONS FOR ELECTION AS LICENTIATES UNDER SECTION III (f) OF THE SUPPLEMENTAL CHARTER OF 1925.

Three applications were approved.

## RESIGNATIONS.

The following resignations were accepted with regret: W. H. Atkin-Berry [F.], W. L. Lucas [F.], W. H. Nicholls [F.], T. Edgar Richards [A.], W. A. Burr [L.], S. Dexter [L.], G. H. Gadd [L.], G. Hutchins [L.], T. M. Logan [L.], R. R. Morton [L.], S. H. Partridge [L.], C. Thorp [L.], R. E. Winder [L.].

## RETIRED FELLOWSHIP.

The following members were transferred to the Retired Fellowship:—

F. T. Baggallay (elected Associate 1887, Fellow 1888).  
A. Morris Butler (elected Associate 1888, Fellow 1908).  
Timothy Hannon (elected Associate 1898, Fellow 1912).  
A. H. Ryan Tenison (elected Associate 1894, Fellow 1903).  
Edward A. Ram (elected Fellow 1897).  
C. J. Tait (elected Associate 1882, Fellow 1906).

## RETIRED MEMBERSHIP OF THE SOCIETY OF ARCHITECTS.

The following member was transferred to the Retired Membership of the Society of Architects:—

J. G. T. West (elected Member of the Society of Architects in 1884, transferred to Fellowship of the R.I.B.A. in 1925).

## ELECTION OF STUDENTS R.I.B.A.

The following were elected as Students at the meeting of the Council held on 3 February 1930:—

ATKIN: JAMES MOFFAT, 10 Perth Street, Edinburgh.  
DAY: ERIC AUBREY, 49 Shirehall Park Hendon, N.W.4.  
DUMVILLE: MAURICE ROLAND, 6 Eastern Road, London, N.2.  
EATON: NORMAN MISGRAVE, 45 Gresham Buildings, St. Andries Street, Pretoria, Transvaal, South Africa.  
FERBER: ERIC RONALD, Overdale, Willaston, near Bickenhead.  
GOODACHE: NORMAN WILLIAM, "Greenby Cottage," Ormskirk, Lancs.  
HAYWOOD: NANCIE BROWNING, 8 Bewick Road, Gateshead.  
HUGHES: HUBERT JOHN, The Vicarage, Chrepotow, Mon.  
KEAR: FRANCIS ARCHIBALD, 2/6 Davidson, 108 Lauriston Place, Edinburgh.  
LAING: JAMES WILLIAM, 9 Muiriston Crescent, Edinburgh.  
MCINTOSH: WILLIAM GORDON, 672 Schoeman Street, Arcadia, Pretoria, Transvaal, South Africa.  
MCRAE: DOUGLAS GEORGE WALSH, 48 Rose Hill Avenue, Toronto, 5, Canada.  
MARTINSEN: REX DUSTIN, Wychwood Road, Forest Town, Johannesburg, South Africa.  
MILES: MARJORIE, Milethorpe, Westmorland.  
NUNN: AUBREY VICTOR, c/o Architectural Association, 34 Bedford Square, London, W.C.1.  
STACY: ERIC FRANCIS, 95 Arcadian Gardens, Wood Green, London, N.22.  
RICHARDS: IOR FRANCIS BASSETT, 46 Cymroed Road, Pen-y-lae, Cardiff.  
SMITH: PETER CHANDLER, 26 Porchester Terrace, London, W.2.  
TURNOR: CHRISTOPHER RICHARD, 4 Wellington Square, London, S.W.3.



## R.I.B.A. PROBATIONERS.

During the month of January 1930 the following were registered as Probationers of the Royal Institute:—

- BANFIELD: GEOFFREY WILLIAM, 43 Brantwood Road, Herne Hill, S.E.24.  
 BRACMONT: HAROLD CAMERON, 1 Waverley Terrace, Marsh, Huddersfield.  
 BROWN: GEOFFREY WILLIAM, The Gables, Whittington, Worcester.  
 DEARE: DENISON HILL, "Denison," 43 Essex Road, Gravesend, Kent.  
 DUFFELL: MARJORIE VECTA, 40 Manchester Street, London, W.1.  
 CARRANA: WILLIAM, c/o Public Works Department, Nicosia, Cyprus.  
 CHRISTIE: ROBERT JAMES BAYNE, "Greslea," Walsall Road, King's Hill, Wednesbury, Staffs.  
 CLAYDON: JOHN ARTHUR, 11 Sandford Road, Chelmsford, Essex.  
 CRITCHLEY: GORDON, "Hazel Dene," 682 Blackburn Road, Bolton.  
 EDWARDS: HENRY CHARLES FRANK, 229 Beaumont Road, Bournville, Birmingham.  
 EVERSON: SIDNEY FRANK, 8, Kidd Street, Woolwich, S.E.18.  
 FOREMAN: ROBERT WALTER, 28 Bishop Road, Chelmsford.  
 FRASER: OLIVER LESLIE, 15 St. Chad's Road, Derby.  
 GILBERT: EDDY, 15 Chorley Road, Adlington, near Chorley, Lancs.  
 HARDWICK: WILLIAM GEORGE, 319 Hasland Road, Hasland, Chesterfield.  
 HILLARY: JOHN SIDNEY, 29 Dagmar Street, Walkden, near Manchester.  
 HENDERSON: JOHN EVEREDSON, 16 Thirlestane Lane, Edinburgh.  
 HOKKINGS: KENNETH LE GARDE, 164 Algernon Road, Ladywell, S.E.13.  
 HIRLEY: LOUIS FREDERIC, "Giltar," Tynypwll Road, Whitechurch, near Cardiff.  
 HURRY: WILFRED ROY, Holly Cottage, Bramford, Ipswich, Suffolk.  
 KITE: LESLIE HENRY JAMES, 80 Duttons Road, Ramsey, Hants.  
 MCCORMICK: DAVID HOUSTOUN, Houstoun, Fish Hook, Cape Province, South Africa.  
 MCINTOSH: WILLIAM GORDON, 672 Schoeman Street, Arcadia, Pretoria, Transvaal, South Africa.  
 MCRAE: DOUGLAS GEORGE WALLIS, 48 Rose Hill Avenue, Toronto, 5, Canada.  
 MARSTON: SIDNEY BERNARD, 13 Marlow Flats, Calvert Avenue, E.2.  
 MARTINSEN: REK DERTIN, Wychwood Road, Forest Town, Johannesburg.  
 MCCRACKEN: THOMAS IVAN, 54 Sydenham Road, Croydon.  
 NAIRN: JAMES DOUGLAS, 62 Gravesend, Arbroath.  
 NOALL: WILLIAM HOBAGE, 153 Henniker Gardens, East Ham, E.6.  
 NUNN: AUBREY VICTOR, 34 Bedford Square, London, W.C.1.  
 PABER: JAMES, South Dene, Scott Park, Burnley, Lancs.  
 PERCY: CHARLES GEOFFREY, 7 Edman Road, Dudley, Wore.  
 RICHARDS: EDWIN HODGER, 184 Newport Road, Holbrook, 4, Lane, Foleshill, Coventry.  
 SMITH: ALEXANDER JAMESON, 6 Kennard Street, Falkirk, Scotland.  
 SMITH: JOHANNES ANTHONIE, 20 St. George Grey Street, Capetown.  
 SMITH: PETER CHANDLER, 86 Porchester Terrace, W.2.  
 TOOMER: JOHN EDWIN, "Brambles," Milton, Weston-super-Mare, Som.  
 TURNOR: CHRISTOPHER REGINALD, 4 Wellington Square, S.W.3.  
 WRIGHT: JOHN IVON, Ancaster House, Uphill Drive Road, Weston-super-Mare.

## Notices

## THE NINTH GENERAL MEETING.

The Ninth General Meeting (Ordinary) of the Session 1929-30 will be held on Monday, 3 March 1930, at 8 p.m. for the following purposes:—

To read the Minutes of the Ordinary General Meeting held on Monday, 17 February 1930; formally to admit members attending for the first time since their election; to announce the names of candidates nominated for election to the various classes of membership.

To read the following paper: "The Design of Modern Railway Stations in Europe and America," by Mr. Frank Pick, Managing Director to the Underground Group of Electric Railway Companies.

## COMPETITION FOR NEW R.I.B.A. BUILDING.

The Council have decided that the design of the new building for the R.I.B.A. shall be the subject of competition open to all members of the R.I.B.A. and its Allied Societies (with the exception of the Jury of Assessors and the Committee placed in the position of Promoters and the members of their staffs).

It has also been decided that the Jury of Assessors shall consist of five architect members of the R.I.B.A. to be selected by the President and approved by the Council. With a view to assisting the President in his selection, members are invited to submit to the Secretary the names of members whom they consider suitable and qualified to serve on the Jury.

## R.I.B.A. ANNUAL DINNER, 1930.

The Annual Dinner will take place on Thursday, 15 May 1930, in the Guildhall, E.C. (by kind permission of the City Corporation). Full particulars will be issued to Members in due course.

## MEMBERS' TOUR TO THE UNITED STATES AND CANADA.

In view of the success which attended the visit to the United States and Canada of a party of members of the R.I.B.A. last year, and as many members who were unable to avail themselves of that opportunity expressed a desire to undertake such a trip on a future occasion, it has been decided to organise a further party this year.

The numerous advantages to be gained by undertaking a visit to the United States and Canada from an architectural point of view will be obvious, particularly when the visit is made in company with fellow members of the Institute.

The suggested tour will include New York, Philadelphia, Washington, Detroit, Niagara Falls, Toronto, Ottawa and Montreal, and notes regarding the places of interest from an architectural standpoint compiled by Mr. Percy E. Thomas, O.B.E., F.R.I.B.A., the leader of last year's party, will be available for members.

The duration of the trip will be approximately one month, and the cost, including cabin class accommodation on the Atlantic steamers, hotel accommodation in the United States and Canada, rail fares, etc., will be about £80. This amount is exclusive of meals ashore, gratuities,



transfer of passengers and baggage between stations, steamers, hotels, etc., and sight-seeing trips.

The party will travel from Liverpool for New York by the Cunard Liner *Samaria* on the 5th July, returning by the *Ascania* from Montreal to Plymouth and London on the 25th July.

Relatives and friends of members will be welcomed.

Members interested are requested to apply to Mr. H. T. Leese, The Cunard Steamship Company, Ltd., 26-27, Cockspur Street, London, S.W.1, who will be pleased to forward a complete itinerary, etc. on request.

### PAMPHLET ON PROFESSIONAL CONDUCT AND PRACTICE.

At the suggestion of the Practice Standing Committee, the Council of the R.I.B.A. have had reprinted and bound together in pamphlet form the following papers on Professional Conduct and Practice, by Mr. W. E. Watson, F.R.I.B.A., Barrister-at-Law, that have appeared in recent years in the R.I.B.A. JOURNAL:—

- (1) Easements (reprinted from R.I.B.A. JOURNAL of 17 September 1927).
- (2) Handbook of Architectural Practice (reprinted from R.I.B.A. JOURNAL of 28 January 1928).
- (3) Party Walls (reprinted from R.I.B.A. JOURNAL of 24 November 1928).
- (4) Contract (reprinted from R.I.B.A. JOURNAL of 12 January 1929).
- (5) Specification (reprinted from R.I.B.A. JOURNAL of 9 February 1929).

While the papers are not exhaustive treatises on the subjects, they are based on the standard works which are recommended for student courses, amplified by incidents arising in the Courts of Justice.

The Council consider that the papers will be found helpful to the inexperienced architect and to others in dealing with those questions which present difficulty in everyday practice, and are specially recommended for perusal by students.

A general index has been prepared by Mr. H. C. Hughes, M.A. (Cantab) [A.], also an index of cases.

Copies of the pamphlet can be obtained on application to the Secretary R.I.B.A., 9 Conduit Street, W.1, price 2s. 6d.

### ISOMETRIC DIAGRAM OF THE CONSTRUCTION OF THE DOME OF ST. PAUL'S CATHEDRAL.

An illustrated Public Lecture will be given at Birkbeck College, Bream's Buildings, Fetter Lane, E.C.4, on Monday, 3 March 1930, at 5.30 p.m. by Professor Beresford Pile, M.A., A.R.C.A., F.R.I.B.A., on "The Isometric Diagram of the Construction of the Dome of St. Paul's Cathedral," prepared by Mr. R. B. Brook-Greaves. The Chair will be taken by Sir Frederick Kenyon, G.B.E., K.C.B., D.Litt.

Members and Students of the R.I.B.A. are cordially invited to attend. Admission free.

A reproduction of the Isometric Drawing is on exhibition in the R.I.B.A. Common Room. The drawing is of great educative value, and members and students are urged to take an early opportunity of inspecting it. Reproductions can be obtained on application to the Secretary R.I.B.A., price £1 10s. 6d. each.

### ELECTION OF MEMBERS, 16 JUNE 1930.

Associates who are eligible and desirous of transferring to the Fellowship are reminded that if they wish to take advantage of the election to take place on 16 June 1930 they should send the necessary nomination forms to the Secretary R.I.B.A., not later than Saturday, 8 March 1930.

### LICENTIATES AND THE FELLOWSHIP.

The attention of Licentiates is called to the provisions of Section IV, Clause 4 (b) and (ii) of the Supplemental Charter of 1925. Licentiates who are eligible and desirous of transferring to the Fellowship can obtain full particulars on application to the Secretary R.I.B.A., stating the clause under which they propose to apply for nomination.

### R.I.B.A. STATUTORY EXAMINATION FOR DISTRICT SURVEYOR AND THE EXAMINATION FOR BUILDING SURVEYOR.

The R.I.B.A. Statutory Examination for the Office of District Surveyor under the London Building Acts, and the Examination for Building Surveyor under Local Authorities, will be held at the R.I.B.A., London, on 7, 8 and 9 May 1930.

The closing date for receiving applications for admission to the Examinations, accompanied by the fee of £3 3s., is 16 April 1930.

Full particulars of the Examinations and application forms can be obtained from the Secretary R.I.B.A.

## Competitions

### ACCRINGTON: NEW POLICE AND FIRE STATIONS.

The Accrington Corporation invite architects to submit, in open competition, designs for new Police and Fire Stations.

Assessor: Mr. Herbert J. Rowse [F.].

Premiums: £250, £150 and £100.

Last day for receiving designs, 31 March 1930. Conditions of the competition may be obtained on application to the Town Clerk, Town Hall, Accrington. Deposit £2 2s.

### CHELMSFORD: PUBLIC LIBRARY AND MUSEUM.

The Chelmsford Corporation invite architects to submit, in open competition, designs for a New Public Library and Museum.

Assessor: Mr. H. V. Lanchester [F.].

Last day for receiving designs, 14 June 1930. application to Mr. G. E. Barford, Town Clerk, Town Clerk's Office, Chelmsford. Deposit £1 1s.

### GLYDEBANK: WAR MEMORIAL.

The Competitions Committee desire to call the attention of Members to the fact that the conditions of the above competition are not in accordance with the Regulations of the R.I.B.A. The Competitions Committee are in negotiation with the Promoters in the hope of securing an amendment. In the meantime Members should not take part in the competition.



**GREENWICH: DRINKING FOUNTAIN.**

The Council of the Metropolitan Borough of Greenwich invite architects to submit, in open competition, designs for a drinking fountain, which it is proposed to erect at Blackheath on a site facing the War Memorial at the junction of Maze Hill and Charlton Way.

Premiums: £50, £20, and £10.

Last day for receiving designs, 10 March 1930. Conditions of the competition may be obtained on application to Mr. F. J. Simpson, Town Clerk, Town Hall, S.E.10, accompanied by a stamped addressed foolscap envelope.

[Conditions have not yet been received.]

**LIVERPOOL: PROPOSED PIER HEAD IMPROVEMENTS.**

The Liverpool City Council propose to offer premiums of 1,000 guineas and 500 guineas in connection with a competition for the improvement of the amenities of the Pier Head. [Conditions are not yet available.]

**PLYMOUTH: SUNDAY SCHOOL, FIRST CHURCH OF CHRIST SCIENTIST.**

The Competitions Committee desire to call the attention of Members to the following notice which has been issued by the Institute:—

"Members of the Royal Institute of British Architects and of its Allied Societies must not take part in the above competition because the conditions are not in accordance with the published Regulations of the Royal Institute for Architectural Competitions."

**WEST HARTLEPOOL: OPEN AIR SCHOOL.**

The West Hartlepool Education Committee have decided to hold a competition for an open air school, for which Mr. E. J. Willie, the County Architect, will be the Assessor. [Conditions are not yet available.]

## Members' Column

**CITY OF COVENTRY.  
ARCHITECTURAL ASSISTANT.**

THERE is a vacancy in the City Engineer's Department for a fully qualified Architectural Assistant. Candidates must be not less than 25 years of age, and be experienced in the preparation of detail and contract drawings for various important public buildings, and must be expedition draughtsmen. Salary will be at the rate of £300 per annum, rising by £10 increments to £350. Candidates will be required to pass a medical examination as although the post is not designated, it may be in the near future. Applications in candidates' own handwriting, stating experience, past and present employment, and accompanied by copies of three recent testimonials (which will not be returned) to be sent to the undersigned by Monday, 3 March, endorsed "Architectural Assistant." Canvassing directly or indirectly will be considered a disqualification.

Council House,  
Coventry.

E. H. FOX, A.M.Inst.C.E.,  
City Engineer and Surveyor.

**MR. J. ARCHIBALD LUCAS.**

MR. J. ARCHIBALD LUCAS, F.S.I., F.R.I.B.A., Architect and Surveyor, of Guildhall Chambers, High Street, Exeter, has taken into partnership Mr. Douglas Charles Langford, F.S.I., of "Gwethian," Broad Lane, Bracknell, Berks. The style of the new firm will be "Lucas & Langford."

**PARTNERSHIPS WANTED.**

A.R.I.B.A., Public School and University, 27 years of age, requires partnership in well-established practice. Experience in prominent London office. Capital available. Apply Box 1820, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

YOUNG ARCHITECT, earnestly wishing to enter practice, but having very little capital, seeks architect willing to give a partnership and opportunity to advertise to pay for partnership over a period.

Suggest elderly Architect wishing to retire from active practice, while retaining an interest. Advertiser is genuine and a hard worker.—Box 4230, c/o The Secretary R.I.B.A., 9 Conduit Street, W.1.

**ASSISTANCE OFFERED.**

ASSOCIATE, practising at West End, wishing to extend present practice, would welcome opportunity to give assistance to other architects or surveyors in any branch of practice. Telephone Gerrard 6117, or apply Box 2897, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

**MESSRS. HEALEY & MACKENZIE.**

MR. A. J. HEALEY, F.R.I.B.A., of 29 George Street, Hanover Square, W.1, has taken into partnership Mr. F. W. MacKenzie, L.R.I.B.A. The title of the firm will be "Healey & MacKenzie, F. & L.R.I.B.A., Architects and Surveyors"; the address remains the same.

**CHANGE OF ADDRESS.**

MR. W. R. BRINTON, A.R.I.B.A., has changed his office address to 28 Essex Street, Strand, W.C.2.

MESSRS. UNSWORTH & GOULDEN, architects, have left their offices in Conduit Street, and have removed to new offices at No. 28 Essex Street, Strand, W.C.2. Telephone numbers Central 2304 and 2305.

**TO LET.**

ARCHITECT'S OFFICES. No. 8 Conduit Street, W., adjoining the Institute, comprising:—Second floor, four good rooms. Third floor, one top lighted drawing office, one room. Rent, £450 inclusive; 184 years' lease, or would let floors separately.—Apply Box 5230, c/o The Secretary R.I.B.A., 9 Conduit Street, W.1.

MANAGER has offices to let in Queen Anne's Gate, Westminster.—Apply Box 3230, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

**TRADE CATALOGUES.**

MR. F. R. STEETEN, A.R.I.B.A., Chartered Architect, of P.O. Box 60, Ndola, N. Rhodesia, would be glad to receive Catalogues for reference and ordering purposes.

## Minutes IX

SESSION 1929-1930.

At the Eighth General Meeting (Ordinary) of the Session, 1929-1930, held on Monday, 17 February 1930, at 8 p.m., Sir Banister Fletcher, F.S.A., President, in the chair.

The attendance book was signed by 23 Fellows (including 5 members of Council), 22 Associates (including 1 Member of Council), 3 Licentiates (including 1 Member of Council), 1 Hon. Associate and a large number of visitors.

The Minutes of the Business General Meeting held on 3 February 1930 having been published in the JOURNAL, were taken as read, confirmed, and signed as correct.

The Hon. Secretary announced the decease of:—

Donald McKay Stoddart, transferred to Fellowship 1925.  
John Henry Woodhouse, elected Fellow 1893.

Mr. Woodhouse was a Past President of the Manchester Society of Architects and represented that body on the R.I.B.A. Council from 1905 to 1907.

Edward Hewitt, elected Associate 1882, Fellow 1893, transferred to the list of Retired Fellows in 1928.

William Steel, elected Licentiate 1911,

and it was Resolved that the regrets of the Institute for their loss be entered on the Minutes and that a message of sympathy and condolence be conveyed to their relatives.

Professor Patrick Abercrombie, M.A., Liverpool [F.], having read a paper on "The Thames Valley Preservation Scheme," a discussion ensued and on the motion of The Rt. Hon. Lord Desborough, K.G., G.C.V.O., seconded by The Rt. Hon. The Earl of Mayo, J.P., a vote of thanks was passed to Professor Abercrombie by acclamation and was briefly responded to.

The proceedings closed at 9.35 p.m.

\* This Paper will be published in the next issue.

**R.I.B.A. JOURNAL.**

DATES OF PUBLICATION.—1930.—8, 22 March; 12, 26 April; 10, 24 May; 7, 31 June; 12 July; 9 August; 20 September; 18 October.



# Journal of the Royal Institute of British Architects

THIRD SERIES

VOL. XXXVII. No. 9

8 MARCH 1930

## Contents for 8 March 1930

	Page
ORIGINAL DRAWING BY G. P. PANINI [1695?-1764] .. .. .	<i>Frontispiece</i>
THE THAMES VALLEY PRESERVATION SCHEME. By Professor Patrick Abercrombie, M.A. (Liverpool) [P.] .. .. .	289
DISCUSSION: .. .. .	295
HIMALAYAN ARCHITECTURE. PART II. By A. H. Langhurat, Superintendent, Archaeological Survey, Southern Circle, India .. .. .	300
CORRESPONDENCE:	
MR. JOHN KERRIE'S PENCIL DRAWINGS. By Professor T. W. Mackall, M.A., LL.D., F.B.A., Hon. Associate R.I.B.A. .. .. .	307
DINNER TO MR. ROBERT ATKINSON .. .. .	307
THE CORROSION OF STEEL BY BREKE AND CLINKEE CONCRETE .. .. .	308
ALLIED SOCIETIES:	
BIRMINGHAM AND ORION ARCHITECTURAL ASSOCIATION .. .. .	309
BIRMINGHAM ARCHITECTURAL ASSOCIATION .. .. .	309
LEICESTER AND LEICESTERSHIRE SOCIETY .. .. .	310
SOUTH WALES INSTITUTE OF ARCHITECTS .. .. .	310
WEST YORKSHIRE SOCIETY .. .. .	310
OBITUARY:	
DONALD MCKAY STODDART. By Alexander N. Paterson [P.] .. .. .	311
DISCOLORATION OF WHITE-LEAD PAINT ON EXTERNAL WORK .. .. .	312
NEW BUILDING MATERIALS AND PREPARATIONS .. .. .	312
NOTICES .. .. .	312
QUERIES AND REPLIES .. .. .	313
COMPETITIONS .. .. .	315
MEMBERS' COLUMN .. .. .	316
MINUTES .. .. .	316
A.B.S. SCHEME OF INSURANCE .. .. .	316





R.I.B.A. Collection

ORIGINAL DRAWING BY G. P. PANINI [1693-1764]





*A bend in the river at Shiplake looking downstream*

Sketch by Professor S. D. Adshhead [F.]

## The Thames Valley Preservation Scheme

BY PROFESSOR PATRICK ABERCROMBIE, M.A., LIVERPOOL [F.].

(Read before the Royal Institute of British Architects on Monday, 17 February 1930.)

### I. AN AMENITY REPORT.

THE Council for the preservation of Rural England has always held that the necessary preliminary to all attempts to safeguard the beauties of the country—both changing and unchanging—is a careful study of the components of the area concerned—a survey, in fact, according to the wide and full meaning attached to this word. Of course, all Regional Planning schemes, promoted by local authorities, are prefaced by a preliminary survey, and nearly a quarter of the acreage of England is now covered by these official schemes; but although the Amenities—to use the frigid latinism adopted by Parliament in order not to frighten its members by the word Beauty—are necessarily considered in these reports of local authorities, they must not be too obtrusive; in

fact, it is generally advisable to back up some plea for the Amenities by adducing a collateral practical advantage, as though it were necessary when commending a pretty woman to add that she is also a good child-bearer. The C.P.R.E., on the other hand, is unblushingly interested in Beauty, without any *arrière pensée*; though it is well aware that beauty is not unchangeable—it may be natural or it may be adorned by human artifice, it may be adolescent or it may be mature in its charms. Now, if one were asked to select a typical piece of English beauty, containing or originated by a great natural feature, but tended and cultivated by human care—moreover, one that was famed throughout the English world, a precious possession, the loss or damage to which would affright us like the ravishment of a colonial possession—what could better



be chosen than the Valley of the Thames? The Council accordingly determined that here should be set up its first branch, an offspring closely linked to the maternal headquarters in London; and its first Chairman, Lord Astor, an inhabitant of the Valley, at once set about the preparation of a survey of its course from Cricklade to Staines. The mere recital of the names of some of the places upon this stretch of 100 miles of river is enough to remind everyone of the importance of this step and to recall to English ears the scenery passed and history evoked: Cricklade, Lechlade, Kelmscott, Stanton Harcourt, Bablock Hythe, Wytham, Godstow, Oxford, Nuncham, Abingdon, Sutton Courtenay, Dorchester, Wallingford, Goring, Streatley, Pangbourne, Caversham, Reading, Henley, Medminham, Marlow, Maidenhead, Taplow, Bray, Windsor, Eton, Runnymede, Staines. Seven counties are traversed—Gloucester, Wiltshire, Oxfordshire, Berkshire, Surrey and Middlesex; and three ranges of hill country are touched—the Cotswolds, the Berkshire Downs and the Chilterns—oolite limestone and chalk, geological strata formative of most typically English landscape.

## II. CHANGE OR STABILITY IN THE THAMES VALLEY.

No survey should be undertaken without an active object in view; we may dimly surmise what we want and use the survey to corroborate, or we may be in the dark and seek illumination. More often we have a fair idea of the main object, but we are not sure whether subsidiary ones are unwarrantable intrusions or useful adjuncts, or perchance contrary currents which yet may be rendered innocuous. We know, for example, before we study Brighton or Blackpool that they live on holiday visitors; but we are not so sure how factories would affect their prosperity—perhaps the Brightonian stockbroker would gape with interest at the unfamiliar spectacle of a mill, whereas the Blackpool tripper would be disgusted at a reminder of what he sought to escape. Is Change or Stability the chief desideratum of the Thames Valley? and does the resolving of the dilemma concern the inhabitants themselves or the world at large—is it a local or a national affair?

It would seem to be demonstrable that the Thames Valley scenery has arrived at a certain pitch of beauty from which most changes would cause a decline. There could not be a more fortunate occur-

rence than the stabilisation of its present condition, accompanied by, of course, a few correctives. This is without doubt the attitude of the world at large. Most people would like the river preserved, as it were, in a glass bottle in spirits of wine—a sort of museum specimen. But museum specimens, however interesting or beautiful originally, are inclined to lose their freshness—even to become wearisome with the arresting of organic growth; and this is the last state which we could wish for the Thames. No, stabilisation of its present state, not fossilisation or ossification, is to be aimed at, together with provision for growth along certain defined lines; these two conditions are not contradictory, largely because in an area of this size there is room for both. And even the use to which the general public puts the present riverside beauty requires constant though, so far as possible, unobserved adaptation for modern needs. The towpath, for example; strictly this is a right of way exclusively for the purpose of towing a barge, but there are not many barges towed along the Thames nowadays, and yet the towpath is the pedestrian's best means of enjoying the river out of reach of the motor-car. The lugging boat horse has given way to the lounging human being. Here is change which is desirable, but it needs legal sanction.

## III. ANALYSIS OF THE GEOGRAPHIC UNIT OF THE THAMES VALLEY.

A closer analysis of this geographic unit of the Thames Valley reveals a different state of sophistication above Oxford and below. Above, the strippling Thames is largely a primitive stream, and what changes have occurred are the unconscious results of utilitarian needs; the bridges and the divisions of farm lands. There are no riverside roads, and the flat floodlands on both sides have kept most building away; if there has been change, in the way of forest clearing from primeval times, there has been little of any sort since mediæval. I hope I shall not be misunderstood if I suggest that this Upper Thames with its fritillary meadows owes its charm chiefly to its remoteness and silence. It has no romantic features—scarce an overhanging bank or woodland—compared with the early course of any western river, Mersey, Dee, Wye or Severn, its course is quiet and uneventful. Tame, a crude Northerner might call this upper Thames. This very negative quality, however, is most precious in



the early life of the London River; but it is a quality that can most easily be daunted, it can stand no rude assaults. Fortunately, the worst buffet it has had (and from a Government-aided fist) the brutal Beet factory at Eynsham, is countered by the 500 feet of Wytham Hill, the only dramatic feature of the upper Thames, and now held in safe hands.

Below Oxford Nature and Man have together produced a very different scene: it is a terrain of constantly varied form—from Boar's Hill, the steep of Nuneham, the Wittenham Clumps, the Goring gap, the endlessly changing swaying lines of the Chilterns, English chalk country at its best, with their climax at Cliveden, to their last outpost, the mound on which Windsor stands. It is not only thus naturally *mouvementé*, but it is a highly sophisticated and consciously wrought landscape. The natural scene is everywhere dominated by human handiwork, towns and churches, bridges, woods, parks, mansions, college chapels and Royal Castle. A foreign visitor, who had heard of Capability Brown and seen his work at Blenheim might be forgiven if he thought that a greater than he had taken the Thames in hand and produced a work of picturesque landscape art, compared with which the Park of Versailles is a small scale effort of formal design—so homogeneous is the scene, based on the English tradition of Heightening Nature, as compared with the French dragooning School of Canal and Avenue.

#### IV. MEANS OF SOPHISTICATION.

One does not realise at first how thorough is this sophistication of the Thames below Oxford; perhaps the most completely permeating human alteration is caused by the locks. The whole character of the river, its brimming stately flow, its width, the form of its grassy marge are largely the result of this artificial damming at frequent intervals. And in the life of the river the change has been effected quite recently; very little beyond flash weirs, I believe, existed before the end of the eighteenth century. If the river is affected between the locks, what of the locks themselves, the weirs and the backwaters—are they not the pictures that one carries away more deeply engraved perhaps than any? For the necessary pauses made there give time for not only sights but sounds of rushing waters and whispering willows to etch themselves upon the memory. We must all agree that the

practical features of these locks—the weirs, the trellis bridges, the pounds themselves, the lock houses, have all been carried out in that satisfying manner that water engineering nearly always succeeds in achieving. The latest lock at Swinford, above Oxford, that has none of the glamour of age or willows or trim gardens like Temple or Sonning, is yet a seemly work that shames the Beet factory across the meadow.

Bridges are perhaps next in importance, and there are in existence examples of all periods, of this human addition to the beauty of the river: from mediæval Newbridge, renaissance Swinford, Wallingford, Shillingford and Henley, the suspension bridge at Marlow, a charming change, Brunel's noble brick viaduct at Maidenhead and the two modern concrete bridges at Reading. These and many lesser ones, like that in brick at Sonning, produce the obvious beauties which one instinctively seeks to photograph; they are works of admirable engineering art, like Waterloo Bridge.

Next comes Planting, consciously done to heighten landscape effect. A comparison of the river prints of Havell and Faringdon of 140 years ago with the photographs of the same scenes to-day will show how much is due to the landscape gardener. At Hardwick and Mapledurham and at Cliveden and Taplow the scenes are hardly recognisable; and at the date of these prints much had already been done. No one could wish this skilful enhancement of fold and swell cleared away. Finally, a more modest human touch in the riverside must not be forgotten—the pollard willow—characteristic tree of the upper reaches.

The contribution of fine building to the valley scene cannot be described in detail—it is rare that a reach below Oxford is not affected. Roughly it may be divided into the Grouped Building—Town and Village—and the Single Building—Mansion and riverside Cottage. Oxford cannot perhaps be considered as primarily conceived as an adornment of the Thames, which, indeed, is somewhat uncertain of himself, his bed and even his name in its vicinity; and Reading cannot claim to add much in the way of beauty; but the smaller towns, Abingdon, Wallingford, Henley and Marlow, are truly riverside places producing the choicest pictures, and the villages are even more numerous; but perhaps Lechlade, Sonning and Bray may be singled out as main-stream villages and Sutton Courtenay and Long Wittenham as backwater





WALLINGFORD BRIDGE  
Photographed by the Earl of Mayo



SONNING BRIDGE  
Photographed by the Earl of Mayo





HENLEY BRIDGE  
Photographed by the Earl of Mayo



MARLOW BRIDGE  
Photographed by the Earl of Mayo



villages. These are random selections, but they may serve to show how much the beauty of the river is owed to these compact groups of warm brick, tile and thatch, from which soars the cool grey of the church spire or tower. It would be even more invidious to single out the best separate houses—the great mansions set back in their parks as Nuneham and Cliveden, or nearer the river front, as Culham Court and Medmenham Abbey; and the riverside cottage and small house, its architecture frequently not impeccable, but veiled by creepers and its garden generally charming with smooth lawn and roses.

Of course, the greatest pieces of architecture, directly seen from the river, are reserved for the lower end of our reach, Windsor Castle and Eton Chapel, a noble twin climax.

#### V. DISFIGUREMENTS.

Indeed, before the railway came, the valley might have been under the control of one of those Chinese professors of Feng-Shui, whose power of control over the landscape was as great as that of the priest over human life, for it was reinforced by supernatural and esoteric powers.

Railways, in particular, with their embankments, tunnels and bridges have always been held by the Chinese to favour the circulation of a maleficent breath—a sort of whiff from the pit—and they and their contractors have frequently been exploded, as creating an inharmonious intrusion. We may perhaps see a wholesome incipient sign of this moral indignation in the Thames Valley, for the row of costly houses at Pangbourne have been locally and appropriately christened the Seven Deadly Sins. I could wish that the chairman of the Thames Valley Branch of the C.P.R.E. might be invested with something of this elevated power, in which offence is lifted on to the plane of moral indignation: I believe the present holder of this office would use his power with restraint and where necessary with ruthlessness. It would, for example, be interesting to know what punishment he would inflict upon the person who might attempt to cut down the Wittenham clump from the top of Sinodun Hill?

The disfigurements which have occurred might be roughly grouped under three headings: (i) those that are in their essence intrusions into the Thames scene, which should never have been allowed, and which should, if possible, be eradicated; (ii) those

that arise from necessary or even desirable things being imperfectly carried out; (iii) those objects that may be good in themselves, but which are wrongly placed or out of scale and character, a more subtle but quite demonstrable producer of discordancy. There is perhaps a fourth type that may be only a disfigurement because of its newness or rawness, such as a new road. It is very necessary to have some such classification in view, in order that condemnation may be discerning and not wholesale. To the first group, unwarrantable intrusions, belong advertisements and litter and certain shacks and the railway coaches at Bablock Hythe. To the second belong many of those pretentious houses which would not have been out of place if they had been of reasonable form and colour. The third group, of things which, though good in themselves, may be ill placed, brings us into the region of really delicate taste: it is possible, for example, that a water-tower or a gas-container designed by an architectural or engineering genius may become a disfigurement—for example, if it were placed upon the island in the Henley reach. You will remember the story of Rousseau, exploring an Alpine valley, from whose wildness he judged his to be the first human foot that had trodden it. Suddenly round the corner of a savage rock he came upon a stocking factory; however well designed it may have been, it disfigured the particular character of the scene. So the lattice standards of the electric cables which may individually be commended (or even designed) by an eminent architect, can, in marching array, entirely destroy the existing scene—they may indeed create another effect, but that is another affair. The gasholder at Staines is not really an ugly erection: isolated in a photograph it is difficult to make it look offensive. But it is entirely out of scale; it may, of course, be suitable for the modern countryside to be dominated by the emblem of Gas, in place of that of Religion, or of Education or of Kingship.

Ribbon development along roads (in addition to its practical disadvantages) offends according to the third category of disfigurement; however good the individual houses might be (and this does not often happen) the ribbon introduces an urban character into the rural scene. Towns and villages, of course, are necessarily made up of ribbons of building along streets, but they are bunched and knotted together, their loose ends





WALLINGFORD, IN BERKSHIRE  
Diagram by W. Harding Thompson [F.]



not straying too far afield. But untie these bows and unroll the ribbon and you interpenetrate the country with an urban feature, while at the same time its real urbanity has exhaled. Similarly it is out of character with the river to attempt to preserve a strip of even width (a green instead of a red ribbon) as a sort of town boulevard, regularly planted with trees—this is quite foreign to the genius of the place.

#### VI. DOUBLE APPROACH TO THE PROBLEM.

The Thames Valley has not, in spite of its popularity, suffered as much as some places, but it is clear that change is threatened and it must therefore be moulded into growth upon lines which will continue the good traditions of the past. At the same time, there are long reaches that one could wish to remain precisely as they are. Might we put it that there must be room for Morris of Oxford and Morris of Kelmscott? There must be regional planning and stabilisation of tenure.

#### VII. FEATURES OF A REGIONAL PLAN.

Among the numerous elements of a regional plan, those points which more specially concern the Thames may be thrust home. (i) **ROADS** are always the first to engage attention and sometimes to engross it as well. Generally speaking, the aim should be to free the riverside of all through traffic, either going along it or across it: to keep these parallel and cross roads for river traffic only and to be extremely conservative about widenings. From Reading to Wallingford as little as possible should be done. Nothing again can be more short sighted than to widen the approaches to bridge-heads, discharging a heavier volume into the bottle neck of a town street already overloaded. Wallingford, Sonning, Henley, Marlow must not only lose their bridges, but their main streets as well if more traffic is encouraged to flow along them. The widening of Abingdon Bridge, so well carried out without destruction of its beauty, is a local improvement—it does not entail evisceration.

Do not let us also try to be too symmetrical: if there is a road on one side, don't assume there must be one to match it on the other: from Caversham to Goring is a precious stretch, only open to the foot-passenger. (ii) **LOW-LYING LANDS**—the river meadows—should be retained so far as possible as they are: riverside building, even

summer bungalows, should not be allowed on these flood lands.\* Here, again, the æsthetic and practical march hand in hand. If all new building were restricted to the rising ground above the floodland, the varying width of the floor of the valley would almost of itself group them into natural conformity. The advantage to the purity of the water which Oxford, Reading and London drinks need not be laboured. The regular washing out of the riverine cesspools by floods is not a pleasant thought to have in mind.

(iii) The third point, already alluded to concerns the grouping of buildings. It would be extremely attractive scenically and hygienically if certain places, either enlargement of existing settlements or new areas, could be definitely planned for groups of houses. This is going beyond control of what springs up spontaneously—it is rather development planning—encouragement to certain spots to grow, and is closely bound up with the problem of pooling of values, too intricate to discuss here. The placing of industries is in this same category, but I would venture to assert that the general industrialisation of the Thames would be bad economics. This does not mean that Mr. Morris at Cowley should close down. Fortunately these works are very well placed in relation to the river, and the Oxford town planning scheme is keeping a tight hand upon industrial straggling. Any industry that shows its face on the riverside must see that its expression is agreeable: it is remarkable that the boat building and repair places which exist upon the Thames' attractions are as ugly as those people usually are who traffic in human beauty.

#### VIII. ELEVATIONAL CONTROL.

Elevational control, both of design and material, is needed in the Thames Valley as much as, or more than, anywhere. The question of whether the requirements will prevent the erection of the absolutely cheapest and shoddiest building need not trouble us here. If such things should be erected anywhere the Thames Valley is certain in the national interest not that place. If these building pariahs are ruled out, the question of cost does not arise—except that usually amendment will mean a reduction. For example, a penance imposed for the absolution of the Seven Deadly Sins would have

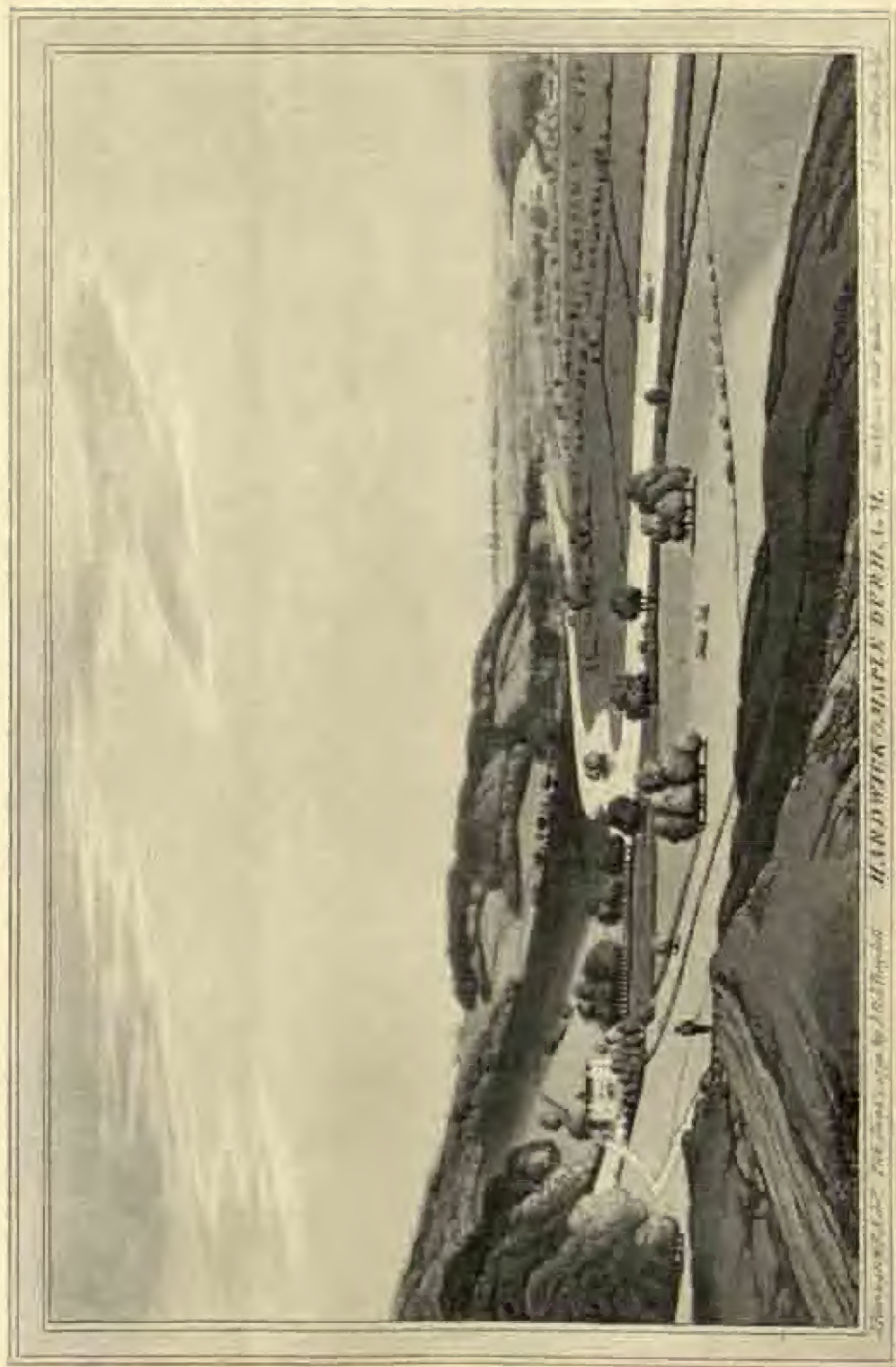
\* The proper summer habitation in such conditions is a tent.





SONNING VILLAGE  
Diagram by W. Harding Thompson [F.]





BRIDGE OVER THE VALLEY OF THE RIVER DON, YORKSHIRE. THE BRIDGE WAS DESIGNED BY J. W. HARRISON, ESQ., AND WAS OPENED IN 1847.

HARDWICK AND MAPLEDURHAM.



meant the casting off of much tawdry bedizenment. But I hope that architectural control will be exercised with restraint—it should be used more for the prevention of outrage, than for the promotion of any one type of design. I believe that much aesthetic wrong doing is the result of ignorance, often even in high places; and the tactful persuasive work carried out by our joint Panels

stability of large areas. Under the Town Planning Act this is possible by means of the Private Open Space in a scheme. The owner who does not wish to offer his land for sale for building is, under this method, not forced to pay death duties on a building value which he has no intention of realising. It suits admirably those estates which have an obvious building value. But it would be



*Prospect from Sinodun Hill, looking north, with Oxford to the left and Dorchester to the right. Day's Luck is behind the trees in the foreground and "Dykes Hills" (ancient earthworks) lie between Dorchester and the river.*

Sketch by Professor S. D. Adshhead [F.]

is better than the invocation of Ministerial powers. These are necessary as a bogey or djin to be held in reserve, but rarely to be called up. The Consultative Panel system, which is working so well in further Oxfordshire, should be applied to the whole of the Thames Valley.

#### IX. MEANS OF SECURING STABILITY.

Simultaneously with obtaining and exercising power of control of growth, it is necessary to seek means, perhaps new means, of securing the

advisable to extend the principle further, and with more general application to exempt specially beautiful areas (and this covers all river-fronting properties) from death duties, as pictures and works of art are exempted. Would not probably most of the 70,000 beeches recently sold to pay death duties, largely on their own value, have been spared if this had been in force? From the Thames the public enjoys, through its eyes and from field paths, a large proportion of this beauty; it is not cut off by a 12-foot park wall. What it



chiefly wants is to remove the danger of forced sales and the consequent handing over of estates to the land butcher. Except round Oxford, where the Preservation Trust is effectively active, and near Reading, it is not necessary to buy large tracts for public use. The river itself is the public's means of access, and what it wants is the present usage and upkeep to remain on as permanent a basis as possible. We are continually imposing restrictions upon the use of land by its owners in the interests of the community; this stabilisation is a relief in another direction, and it is equally in the interests of the community.

#### X. THAMES VALLEY BRANCH— CUSTODIAN FOR NATION.

The Thames Valley Branch of the Council for the Preservation of Rural England has been formed for the special purpose of harmonising these two aspects of stabilisation and development; having representatives of the Local Authorities, Thames Conservancy, the Preservation Trusts and Societies (Oxford, Windsor and Wallingford to Mapledurham), the Rural Community Councils, Archaeological and Architectural Societies and the landowners; it is thus in a strong position to get things done. In fact, it is the custodian of the Thames on behalf of the Nation.

#### XI. DANGERS IMMEDIATELY AHEAD.

And there are problems and even dangers immediately ahead. The hints of universal drainage schemes of tributaries, and even main river, are in the air. There is a dangerous plausibility about the idea of extending the Wey Valley scheme up the river. To drain waterlogged land sounds an attractive policy, but tampering with nature is always dangerous—to eliminate the flood lands, the safety valves of the river, and to rush the water down upon London would be disastrous. It would probably mean embarking upon a scheme of embankments and levees for the main channel, as is done on the Mississippi; gone will be all the beauty of the river. The water meadows, excellent for hay crops and grazing, will be converted into indifferent building land, whereas

there are thousands of acres available of higher and better ground; and, lastly, the springs, fed from the percolation through the chalk, will dry up, not having the flood months to feed them.

Electric standards have been planned to pass along the whole course of the upper Thames; tactful persuasion, perhaps, can push them farther afield. It is idle to point to the Campagna, whose landscape is ennobled by the viaducts; the Campagna is a dull and dreary desert, fit background for an engineering parade. The upper Thames will lose entirely and finally its particular type of beauty if these standards march along its course.

The springing-up of shacks on the model of the railway wagons at Bablock Hythe, the threat of new 80-feet high gasholders to punctuate the landscape, the prospect of the felling of noble beech woods—all these must be dealt with, in no petulant mood, but firmly to prevent wanton outrage and to control necessary change.

#### XII. TWO FINAL POINTS.

The Report and Survey in the preparation of which I had the honour to be associated with Lord Mayo, Professor Adshead and Mr. Harding Thompson is but the first step. It surveys the ground and suggests some general lines of action. The serious work is for the future.

Perhaps two final points might be made. The first—a general one—that the Thames Valley proves the necessity for the study of landscape design, if we are to have rural planning powers. The general public, no less than professional designers, must learn to look beyond the hedge of the garden, the paling of the park or the last group of the garden suburb; the whole countryside is subject to æsthetic laws of sophistication.

The second—a particular one to the Thames—that the Valley is not so safe as it seems.

There is a large number of well-disposed people, landowners and others, who are looking after its interests. But, unfortunately, they cannot live for ever. The future is largely dependent upon the hazard of human life. Steps must be taken to put things upon a more permanent basis.

*(All the illustrations used in Professor Abercrombie's Paper have been taken from the Report of the Thames Valley Branch of the Council for the Preservation of Rural England.)*



## Discussion on Professor Abercrombie's Paper

(THE PRESIDENT, SIR BANISTER FLETCHER, F.S.A., IN THE CHAIR.)

The Rt. Hon. LORD DESBOROUGH, K.G., G.C.V.O., in proposing a vote of thanks to Professor Abercrombie for his paper, said: I rise for the purpose of proposing to our talented lecturer a most hearty vote of thanks for his lecture. We have been taken down the Thames, which, as Chairman of the Thames Conservancy for many years I ought to know something about, with the speed of a motor launch, and I certainly enjoyed everything he said. Professor Abercrombie is engaged in a great work, trying to preserve something of what remains to be preserved of one of the most beautiful rivers, or what used to be one of the most beautiful rivers of Europe. The part from Cricklade to Lechlade and to Staines may yet be preserved by the united efforts not only of those who are principally interested in the land, but by public opinion, which will not allow, I hope, in the future, further desecration of our beautiful river. There was a good deal in what Professor Abercrombie said with which I agreed, but I do not know that I agreed on any one point more than on this: that, in the future, buildings should not be allowed to be placed for human habitation in areas which are known to have been flooded, and, in all human probability, will be flooded in years to come. If that provision were carried out, we at all events would be able to preserve the margins of our river.

Professor Abercrombie alluded in a few words, about three-fourths through his lecture, to what might possibly happen supposing a large scheme of preventing Thames floods were carried out. Well, the flood of this year was a very large one. As you probably know, the Thames is measured every 24 hours—from midnight to midnight—and we know how many gallons go over Teddington Weir at every hour, and have done for the last 41 years. To take away the flood of last year would have required two Thameses. The flow then was 10,500,000,000, at its height, and what the Thames will do now normally is 4,500,000,000 without flooding. Twice this figure is 9,000,000,000, so that two Thameses would not have stopped this flood. To increase the volume of the Thames enough to double its capacity would alter the Thames, and it may then be a good river, to carry off the water, but it would not be our old Thames, and the two views are somewhat conflicting. Those who have built houses which are liable to be flooded, where they never ought to have been built, that is, on ozier beds which have been flooded every year that I know of, are now to have their houses and lands absolutely preserved from all danger of flood. It can be done, but at enormous expense: and the lovely bridges and banks which we

have had projected on to the screen, from Cricklade to Staines, will not exist. Those who have to deal with this question will certainly have to face that possibility.

We all know what an amount of time Professor Abercrombie has devoted, with those who have helped him in surveying the Thames from Cricklade to Staines; and I take this public opportunity of thanking him, not merely for the lecture which he has given to us, but also with his fellow workers for the splendid efforts they have put forward in bringing out this survey.

The Rt. Hon. THE EARL OF MAYO, J.P., in seconding the vote of thanks, said: I am impressed, as I well may be, but the more so since I heard Professor Abercrombie's lecture, with the fact that an arduous task lies before those of us who have now undertaken the responsibility of carrying out the work of the preservation of the Thames Valley. Let me assure Professor Abercrombie that the Thames Valley will be grateful to him for having read this paper. It will help our cause, and I hope it will have abundant publicity.

We have great hopes. We hope that in due time—and I trust it may be within a not very long period—the Thames Valley, with all its charming towns and villages, will become a model of what that unique valley ought to be. We hope there will soon arise throughout the wide watershed a large preponderance of public opinion determined to rid the Valley of every hideous advertisement, determined to preserve its present beauties, to add to those beauties, and to continue until we are able to say, as I know every one in this room desires, that the Thames Valley is a perfect example of pure and unspoiled English scenery.

I would like just to say this: that there hangs over us, as has been indicated by Lord Desborough, a nightmare in the shape of the threat to drain the whole of the Thames Valley and its tributaries. We have seen what has happened in the Wey Valley, where an extravagant and—as I think—unnecessary scheme of drainage has been authorised. The River Wey is to have all its bends cut through, and is to become nothing more nor less than a canal. If that is going to be continued, if other tributaries of the Thames, and indeed if the Thames itself, is going to be treated in this manner, all its beautiful bends, all its picturesque islands, all its peaceful backwaters, all its beautiful bridges will be swept away. And what will you have left? Nothing but a straight, huge and hideous canal. It is quite unthinkable that such a thing should happen. Yet it is threatened; and there is only one thing which can pre-



vent it, and that is, as Lord Desborough has said, public opinion. We have just seen what public opinion can do. Public opinion has, rapidly and decisively destroyed the scheme for making huge sewage works in the historical and beautiful Syon Park; and we hope that public opinion in the Thames Valley will be so strong that it will frustrate these horrible schemes which will destroy it and make it not only totally different to what it always has been, but something which I hope we are all determined it never shall be. There is one thing, Sir, that I know we can rely upon, and that is the cordial support of every member of this great Institute. I know they will help us in our endeavour to secure good designs for new buildings, to secure good taste in restoring old ones; and I am sure they will exercise all their powers of persuasion in the encouragement of harmony and beauty.

In conclusion, Sir, I would just like to say this; that he is a fortunate man who has Professor Abercrombie for a colleague. To work with a man of such unbounded enthusiasm and energy is indeed delightful. I look back to the days which we spent together on the Thames Valley survey as days of great enjoyment. How, indeed, could they have been otherwise? For there is no one who could be a kinder, more cheery, or more delightful a companion than my friend Patrick Abercrombie. It is with the greatest possible pleasure that I second this vote of thanks.

Professor S. D. ADSHEAD [F.]: It was my privilege to be associated with Lord Mayo and Professor Abercrombie in the survey which has recently been made of the Thames Valley. Professor Abercrombie has, in his picturesque language and fluent oration, given you an excellent panoramic view of the Thames Valley: a very illuminating exposition. The solution of the Thames Valley problem is really part of a problem which confronts us to-day in regard to the whole of England. The difficulty with which we are now confronted has come upon us with appalling rapidity, and is closely connected with transport. Whereas twenty years ago the Thames Valley might have been regarded as a paradise safe from encroachment and desecration, to-day, it is either open, or is threatened to be opened, to a crowd of irresponsible people who are attracted by the less responsible speculative builder. There are two dangers: the one is the provision of new means of access, and the other the provision of resting places for the crowds when they get there. It is futile to attempt to prevent the construction of the bungalow in its various aspects without at the same time considering the bigger problem of the approach. Curiously, at the present moment, the thing which struck me more than anything in making the survey with Professor Abercrombie, was that the Thames Valley is extraordinarily secluded and unspoilt, and we are privileged to-day

in having the opportunity of preserving it, preserving that sophisticated park-like character which is unique.

I think the first danger we must attempt to avert is the introduction of "improved lines of access." We must watch every adventure of the railway company, of the road engineer to make more accessible roads, and of the charabanc proprietor, all engaged in providing better means of access for the general public. As a matter of fact the public can get there and enjoy it in the right sort of spirit, and, as it is to-day, without spoiling it, if they care to do so; but if we are going to have promenades down each side of the river, and charabancs in continuous progression, we shall lose all the seclusion which is the most valuable of the Thames-side amenities and interests. This preservation of the beauty of the countryside could nowhere be more emphasised than it is in the Thames Valley; I cannot think of any strip of English scenery which is more deserving of care and preservation than the Thames Valley. Professor Abercrombie has shown that it has a character peculiarly its own, in that it has arrived at a sophisticated period when, if it is carried further, it will become too artificial, and where it must be approached with the very greatest caution as to any kind of "improvement" or alteration. It has a curious association of characters: there are villages, like Sonning, neat and tidy places, which have not got that sophisticated character of the park-like scenery which characterises places like Newnham, where we have the delights of Claude Turner, Gaspard Poussin and other eighteenth-century painters of English landscape scenery in a classic manner; there is nothing else quite like this either in England, or, I think, anywhere in the world.

Colonel R. W. FFENNELL: This, of course, is a question not merely for the inhabitants of the Thames Valley; it is a great national question; it is one which must interest many people who live far from the shores of our own islands, this safeguarding of the beauty of the River Thames. It has been a great privilege for all of us, I am sure, to have heard the speakers of to-night. I would add only one suggestion, if I may; it is that, apart from certain restrictions which should be imposed, such as the one urged by Lord Desborough, that buildings shall not be allowed in areas liable to flood, it would be well if it were laid down, and laid down soon, that no buildings in any part of the country should be erected without the assistance of an architect.

Mr. EDWARD WARREN [F.]: I have shown sufficiently, I think, my love for the Thames Valley by going to live in it, and by building a house there. But I have listened to Professor Abercrombie with the greatest possible pleasure, and especially to his description of towns and villages which I know and love. I think it a dreadful sign of the times if we have to feel



that the Thames can no longer be protected. I have seen it protecting itself recently after the heavy rains, when acres upon acres of the meadows around Oxford were flooded, showing that, in its present condition, which I hope may long be maintained, it is impracticable to build anywhere close to its banks, at any rate anywhere between Oxford and Reading, except in one or two districts where those banks happen to be high. But at any rate the Thames has that element of self-protection which will preserve a great part of its area, unless some most drastic steps, which I hope we shall not see, are taken to rob the Valley of its beauties. On the banks farther down than Reading there is a particularly pleasing type of old house which has arisen from natural circumstances, from the absence of rock and the presence of clay, delightful old brick-and-timber and plastered houses.

I know all the charming towns which Professor Abercrombie has so happily shown and described, and I think there is a singular poetry which haunts the Thames Valley, and I am certain from the way in which he spoke that Professor Abercrombie thoroughly appreciates this. What we have to do now is, not only to protect the immediate banks of the Thames, but the ground a little way inland from it, where it is possible, and, unfortunately, eminently practicable, to build rows of houses. Those of you who know Dry Sandford, close to Oxford, will know that it used to be beautiful, but, if you pass close to it now, you find a terrible congeries of raw red houses. Of course, they will look better in the course of time, but at present they are very disagreeable; and one cannot help feeling that instead of the ordinances which seem to render necessary a toeing of the line in an absolute manner, it would be better to allow houses to be built, on certain areas of land, and rule that they shall not be in line. The promoters could arrange that a certain number of houses should be stepped back, and others set forward, and so prevent the terrible sameness which you get in places like Didcot, where rows of thoughtless houses have recently been put up. That is one of the elements which is destroying, not the immediate Thames, because usually the ground close to the banks is not suitable to build on, but the land within, say, a quarter of a mile of it. We see these ugly rows of houses spoiling the character of the country, especially that part of it which is seen from the low hills which are one of the charms of the upper parts of the Valley.

Dr. RAYMOND UNWIN [F.]: It is not easy, as Professor Adshead said, to speak of the Thames Valley without a good deal of feeling. It is well over fifty years since I first rowed up Thames from Oxford to Lechlade; I have been many times since; and I was glad to find, a few years ago, that only one noticeable new house had been erected in that stretch. That was a great relief. We owe Professor Abercrombie special

gratitude for the work he has done during the last few years in calling attention to the importance of preserving rural England. Many of us have been engaged in trying to preserve the outskirts of our towns, and other matters; but Professor Abercrombie has made this piece of work his own; he has brought to it a genius and a common sense combined which are very powerful and very persuasive. And I feel sure that what he is doing will be really effective.

It seems to me we have to concentrate on a practical point here. It is not an easy point, but it is one which we have to be able to deal with. We must find some way by which, with fairness to all parties, including the public and owners of property, we can say: Building may take place here; it shall not take place there. And one of the places where, mainly, it should not take place is along the banks of the Thames within sight of the river. That will be subject to exceptions. There will be points at which Professor Abercrombie would doubtless say that well-designed building groups could be erected, not only without harm, but possibly with advantage. In the main, it seems to me that that Valley is one of the strips of land that has a tradition, that has a peculiarly English type of beauty; and the more we can preserve it from the inroads of modern building and modern development, the safer it is. I very heartily wish that we may all do what we can to strengthen the hands of Professor Abercrombie, Lord Mayo, Mr. Harding Thompson and Professor Adshead, who have done so much to save this priceless piece of English scenery for the enjoyment of those who may come after us.

Mr. HARDING THOMPSON [F.]: I should like to draw the attention of the people in this room to the acknowledgment which we made in our report to the kindness of the Thames Conservancy, and Lord Desborough in particular, for giving us the use of his launch in our survey work. One of the things which strikes one most in travelling about the Thames Valley is that very carefully and consciously the old villages, or nearly all of them, were placed on high ground, the other land liable to floods having been left severely alone.

Another thing is that the old farm houses and villages are nearly all connected by an excellent network of footpaths. It is almost incredible the total mileage of public footpaths in this country which are very little used. In these days when the main highways are becoming almost impossible for pedestrians and horsemen, and for farmers and others who have to drive cattle, it would be extraordinarily useful if we could preserve these secondary means of communication across the open country. They add much to the amenities.

Professor Abercrombie mentioned railway carriages; he showed railway carriages being used on the banks



of the Thames. I have noticed in other parts of the country, when on survey work, particularly in Cornwall, that it is becoming the fashion to dump railway carriages along at different points of main highways and use them as village halls. In villages in Cornwall there are several decrepit railway carriages close to the carriage way, and in that way disfiguring the village. At many railway stations there are advertisements for railway carriages for sale—I have one particular railway company in mind.

I should like to say how very much I have appreciated the opportunity of working with Professor Abercrombie, Lord Mayo and Professor Adshead on this survey, and how very instructive it has been. I hope the real work, which is now beginning, to preserve the Thames Valley, will find plenty of supporters, both in this room and outside it.

Mr. ARTHUR CROW [F.] : I want to mention only one point, which occurred to me as I heard the lecture. It is this : I never knew before that the Thames Valley stopped at Staines. I am still learning and willing to absorb new ideas, but I did not know that. We have to remember that the Thames Valley extends right away to the open sea, as you can realise when you study the map. The land on either side is elevated, and that is the reason for the course of the river. I can well understand that Professor Abercrombie did not want to come too far along the Thames, otherwise he might have got into difficulties at a little place they call London. But, by-passing that little village, with all its eccentricities, I would take you to Woolwich and Barking, and ask you to follow me down the river to its mouth. Some years back the Garden Cities Association appointed a small Committee (The Thames-side Housing and Development Committee), of which I was Chairman, and we studied that part of the river all the way down; and we found that not only were there beautiful stretches of marshes, the haunt of wildfowl, being fast obliterated by factories, but there were one or two beautiful vantage points, one of which in particular I will mention. That is a spot at East Tilbury, just beyond Tilbury Docks, a little elevation or hillside at a broad bend in the river. When you climb that on a summer afternoon, when the tide is high, you see the great ships going down the River, ships which represent the trade of London reaching out to all parts of the Empire and of the world. I think we could take steps to secure one or two of those beautiful spots for the use of the inhabitants of those fast-growing areas such as Dagenham, Purfleet, and Tilbury itself. I would appeal to Professor Adshead, who is in charge of the South Essex Regional Plan, to make a special note in his Report of this beautiful viewpoint, that it may be preserved to the East End of Greater London for all time.

Mr. BASIL HOLMES : I am a Member of the Middlesex County Council, and of the Thames Conservancy. The last speaker said we stopped short at Staines. But I would say that the Middlesex County Council and the Surrey County Council have appointed a joint committee, of which I have the honour to be the Chairman, and it is engaged in a survey of the river from Staines to Putney, which is a far more difficult job than the Cricklade to Staines section. The beauties of the river in this lower section have been already very much interfered with by bungalow building, waterworks, and other things. I am happy to say that the survey is almost finished, and I shall soon be calling the committee together, when I hope we shall make some useful suggestions and recommendations. But our difficulties have been greatly added to by the Wey Valley Drainage Scheme, which necessitates consequential enlargement works in the Thames, at an expenditure of £300,000 between Shepperton and Teddington Locks. You can't spend £300,000 in 11 miles of river without leaving some marks, and our survey has that matter to contend with. But we shall see, as far as possible, that the existing amenities of the river shall be interfered with as little as possible. As I have said, I am also a member of the Thames Conservancy, and Lord Desborough and I, perhaps more than other members of the Board, are particularly concerned with the preservation of the amenities of this unique river, and we do all we can to preserve them.

I am especially interested in the question of access to the river. As Professor Adshead said, we do not want promenades or roads; but it is very necessary we should do what we can to keep up the towpath. There is no more delightful continuous pathway in the kingdom than this 136 miles of towpath along the river. But its condition in places is unsatisfactory, and it is nobody's business to keep it going. If the river causes erosion and the towpath disappears, there is no means of reinstating it, except by negotiations with the owners for adjoining land, where the erosion takes place, and reinstatement may be a costly business. It will be well for us to see what can be done to secure the permanent safety of the pathway. Otherwise the public access to the river will be very circumscribed, confined only to isolated spots, and to people who care about boating, and are able to incur the expense. The towpath walk affords delightful opportunities for seeing unfolded before one's eyes the beauties of the various reaches of the river. Only in one or two towns like Reading do we need a "promenade." We merely need for the greater part of the distance the preservation of the towpath bank, should it give way, as the actual pathway thereon, alongside meadows, keeps itself.

Major H. C. CORLETTE [F.] : I wrote to Professor



Abercrombie recently suggesting he might do what he could to extend the view of rural questions, so that they might be applicable not only to England, but also outside it. He has used one word in his address this evening, and that was "Runnymede." I understand that Runnymede has recently been presented to the nation; and it is sufficient to suggest that Runnymede as part of the Thames Valley means that it is not only an English question but is a matter which would appeal very much to people outside this country. I refer to the Dominions as a whole. If they realise that an endeavour is being made to preserve this Thames Valley, which to me is the epitome of England, we shall have done well.

The PRESIDENT: We have listened to-night to a very delightful paper by Professor Abercrombie, who, I am sure, has given us a good deal to think about, and we are also indebted to those who have added to our knowledge of the subject in the discussion.

One thing which seems to me to be very satisfactory in connection with the Thames is that it has its own protection in its own hands. That is to say, the flood areas seem to afford a reasonable means of protecting the Valley of the Thames from the building of unsightly bungalows. I should have thought that in any town-planning scheme the flood area could have been ruled out, in considering land for building upon. We have a Greater London Regional Town-planning Committee, and Dr. Raymond Unwin is our technical expert, so I should think something could be done in regard to that matter, although I do not recollect how much of the Thames Valley comes into the Regional Planning scheme. I think it ends somewhere near Windsor.

The vote of thanks has been proposed by Lord Desborough, and we are very glad that he has been good enough to come here to-night. For many years Lord

Desborough has been Chairman of the Thames Conservancy, and he has done much to preserve the amenities of the Thames by means of some of the charming little bridges which he has had erected across the upper parts of the river. As long as the Thames Valley is under his charge, I think we may feel fairly safe that as far as his power goes the amenities will be protected. We are also very pleased to welcome here the seconder of the vote of thanks, the Earl of Mayo, who has been largely associated with Professor Abercrombie in this matter. I therefore have the greatest pleasure in putting this vote to you.

Carried by acclamation.

Professor ABERCROMBIE, in reply: It has been a great pleasure to carry out this work with my colleagues whose names have been mentioned. And we have the great satisfaction that the Thames branch is in such safe hands. Lord Mayo has kindly consented to act as Chairman, in succession to Lord Astor. Lord Mayo is a man who knows the Valley from thread to needle. Like ourselves, he is a technical man; Lord Mayo is an engineer. And fortunately we have with us to-night the Secretary, who has so kindly undertaken this onerous task, General Sir Francis Bingham. Between those two, I feel that everything which is possible will be done to keep the beauties of the Thames Valley and see that change is properly ordered.

So we have finished one section of the work, the Survey, and it is now the real work begins, and it is in good hands.

NOTE.—A Regional Planning scheme has been prepared for the Buckinghamshire side of the river by Mr. Davidge, who is also engaged upon a regional scheme for Berkshire. An Oxfordshire Regional scheme is being prepared by Lord Mayo and Professors Adshead and Abercrombie.



## Himalayan Architecture. Part II\*

BY A. H. LONGHURST, SUPERINTENDENT, ARCHAEOLOGICAL SURVEY, SOUTHERN CIRCLE, INDIA



FIG. 16.—TEMPLE NEAR BHYTRAB, PATÂN, NEPAL.

**B**EFORE describing the typical example of a Nepalese temple shown in Fig. 16, it seems necessary to say something about this little known State, and for this purpose I cannot do better than quote from Mr. Percy Brown's fascinating book, *Picturesque Nepal*, as this work contains an excellent description of the arts and architecture of the State.

It seems that the original inhabitants of Nepal are the Newars, while the present ruling race are the Gurkhas, who conquered the country in 1768. For a sound administration and an ideal military organisation, the methods of the latter may be studied, but for the arts and architecture, and all that is picturesque and historic in Nepal, we are indebted to the Newars. The latter are said to have come originally from Tibet and its vicinity, and settled in Nepal in remote times. They now form the bulk of the population of the

ancient capitals of Patân and Bhatgaon. As carpenters, wood-carvers, and metal-workers, they are particularly skilful, and the picturesque appearance of old Nepal is mainly due to the artistic temperament of the Newars. The carved wood and embossed metal work on the sacred buildings and palaces in all parts of the valley, is one of the most striking features of the State. As in other parts of India, this art is almost entirely connected with the religion of the people and to understand it, some reference to the cult of those responsible for its production is necessary.

The prevailing religion of the Newars is Buddhism, and has been so ever since 250 B.C. when the great Asoka visited Nepal and made Buddhism the religion of the State. Asoka is said to have commemorated his visit to the country by the foundation of a city and the erection of a stupa and other religious buildings in its centre. The site selected for the new capital is now occupied by the present city of Patân. What particular

\* The first part of this Paper was published in the JOURNAL of 22 February 1930.



dynasty held sway at the time when this important event took place is not clear, but at a date previous to the Christian era a race of Rajputs overran the country and founded a long line of kings which are recorded as belonging to the Suryavanshi dynasty. Buddhism still remained the chief religion of the country, but the ruling race were Hindus, who endeavoured to introduce into the temples the cult of Siva. Thus, we have an early instance of the two religions being brought into contact, a state in which they exist at the present day. The Suryavanshi dynasty came to an end in the sixth century A.D., at which time the country was conquered by the famous Vikramaditya of Ujjain. He favoured the Hindu religion, but never persecuted the Buddhists. He seems to have left few records of his occupation of Nepal, but indirectly his association with the country was significant, as it coincided with the commencement of a new dynasty known as the Thakuri, and it began with a new era called the *Samvat*, the system on which historical dates in Northern India are founded. The Thakuri dynasty continued in one form or another until the eleventh century. During this period, we have an interesting picture of Nepal recorded by a Chinese ambassador. The latter states that:—"The houses are of wood, painted and sculptured; the people are fond of bathing, of dramatic representations of astrology, and bloody sacrifices." The king, named Narendra Dēva, is said to have "shown a marked devotion to Buddha. The pavilions of his palace are covered with delicate workmanship. In the middle is built a tower of seven storeys, the grandeur and wealth of which is most remarkable." He also mentions that "Buddhism and Brahmanism flourish in the principal temples, which are wealthy and well supported. Numerous monasteries shelter the Buddhist priests. Commerce prospers and trade is well organised and directed." In other words, the Nepal of the early Middle Ages bore in many respects a striking resemblance to the Nepal of the present day.

The high standard of the doctrine and discipline that marked the character of early Buddhism has become considerably modified in Nepal by the introduction of many of the more popular features of modern Hinduism, and thus the religion has lost much of the chaste and simple character for which it was originally noted. In this manner, we find in the precincts of a Nepalese temple or monastery, a medley of Hindu and Buddhist symbols and images. A temple in Nepal will often display an image of the Buddha, calm, dignified, and reposeful, while in close proximity is placed a many-armed figure of Durga, or Kālī, symbolising all that is restless and terrible in a faith which rules by fear. Interwoven with these two creeds is a third form of worship. Peering from under the broad eaves of the temples in the form of wood-carving, leering in gaudy colours from the red

walls of the temples, the Tantric element of Nepalese Buddhism appears in many architectural forms. Who and what are the devotees of this unhallowed cult is never divulged, but that it has a firm hold on a large community is proved by the frequency with which its various aspects are pictorially expressed.

Concerning the wood-carving adorning these temples, Mr. Brown states as follows:—"Of what may be termed the minor arts of Nepal, that of the worker in wood is the most important, and in his productions this craftsman has been even more prolific than the metal-worker. But he has rarely if ever aspired to statuary in this material, although his caryatid roof struts are at times such wonderful figure groups that they may almost be classed as fine art. But regarded broadly the Newar wood-worker has subordinated his handiwork and utilised it mainly in conjunction with the architect, so that his conceptions come within the category of the applied arts. In his carved tympanums, those large characteristic panels applied over all Nepali doorways, the wood-worker has been allowed considerable latitude, and these features are often complete pictures, religious subjects sculptured out of wood, and treated with a freedom which adds not a little to their charm. The motive of these 'over-doors,' whether in wood or metal, is ordinarily the same general idea—a story in the centre depicting a mythological incident, or a pictorial arrangement of various deities, while around the whole in high relief is displayed a kind of traditional convention of Garuda, Makaras, Nagas, and ornament, nearly always composed on the same general lines. A picturesque detail and one on which the Newar wood-carver delighted to show his skill and versatility, is the afore-mentioned roof strut, supporting the wide overhanging eaves of the pagodas. The broad roofs of these buildings naturally threw deep shadows, and the duty of breaking up this dark mass with some light and graceful design was left to the artistic devices of this craftsman. This individual conceived the idea of converting these constructive elements into figures of deities provided with many arms, and the problem was solved in a most satisfactory manner. The light catches these fanciful figures with outspread arms, and the heavy appearance of this shadow is at once corrected, and an artistic and picturesque effect attained. (Fig. 16.) But this is only one of the many clever contrivances invented by the Newar wood-worker to overcome constructive difficulties of a like nature. That useful element in sound building, the wooden lintel, is a special characteristic of Nepalese architecture, and the decorative treatment of this forms an important feature of the style. A masonry composed of a good red brick flashed with a kind of half glaze, and bound with beams of timber, is the manner in which the builder carried out his work in the days of the Newar kings.



and over this sensible solid framework the metal and wood-worker were allowed to bring their artistic fancies into play, with a result in every sense satisfying. This structural device of the lintel, as used in connection with the doors and windows, gives the buildings of Nepal their distinctive character, and the particular beam above and below the window, treated in the Newar manner, is the keynote of the whole design. Foliated and elaborated, moulded and corbelled, this constructive element was the joy of the wood-carver, who brought all his artistic energies to bear on its embellishment. The consequence is that the window, in Nepalese buildings, has rarely received more ornate treatment in the history of art."

On plan and in design, the Nepalese temple is similar to those found in the Himalayan districts further west. The plan is ordinarily square, and the ground floor is usually the only part of the structure put to any practical use, the upper floors which may be several in number, being usually "blind storeys." The room on the ground floor is built on a stone or masonry plinth and forms the shrine chamber. The interior is plain and contains nothing but the object, or objects, of worship and a few religious accessories. But outside, the doors and windows are usually lavishly decorated with carved wood and metal work. The walls are built of brick, instead of rubble masonry, and timber, and the roofs are covered with tiles in place of slates or shingles as in the earlier temples of Kulu and Chamba State.

Fig. 16 shows two typical Nepalese temples situated in the Durbar square of the old capital of Patān. The one in the centre is the temple of Bhyrab, that on the left is dedicated to Krishna and has two stone elephants guarding the steps leading up to the entrance, and in the background behind the Krishna temple, is the stone spire of a modern Hindu shrine built in the northern style of Indian architecture. Most of the Nepalese temples are comparatively modern structures, and none of them appears to be earlier than the fifteenth century, so we do not know what the first wooden temples were like, but it is reasonable to suppose that these were similar in style to those of Kulu and Chamba, and that the Newars being a far more artistic race than the inhabitants of the western Himalayas, soon improved on the original design and developed the style on their own lines. However, the Nepalese temples still retain many architectural features which clearly indicate their source of origin. For instance, although the three temples shown in Fig. 16 are all Hindu shrines, all of them possess certain features which are purely Buddhist in origin. The front of each roof of the Bhyrab temple is provided with a group of copper gilt finials. In shape these finials are merely miniature votive stūpas like those

shown in Fig. 7.\* The group of finials surmounting the uppermost roof is over-shadowed by a large copper-gilt umbrella, also shaped like a mediæval Buddhist stūpa. Metal umbrellas of this shape are common in Nepal and may be seen overhanging the temple idols and also above portrait statues of former rulers of the State set up in the Durbar squares of Patān and Bhatgaon. The finials adorning the principal gateways are also in the same Buddhist style. It will be noticed that the summit of the Krishna temple is decorated in a similar manner. Again, the tall spire of the modern Hindu shrine at the back of the Krishna temple represents the same ornament reproduced in stone.

The doors and windows of the Bhyrab temple are richly carved and the entrance is guarded by two fearsome bronze leogryphs. Above the doorway is a handsome wooden balcony the bottom of which is decorated with a wooden fringe like those found in Kulu. The eaves boards have the same perforated cruciform design as that found carved on the wooden windows of the Kulu temples (Figs. 8 and 9), but instead of the wooden fringe, the underside of the eaves is decorated with a row of brassbells with very long tongues, the latter shaped like the leaves of the Bodhi tree, as we noticed in the *khuda's* umbrella (Fig. 2). The custom of using bells in this manner is a very ancient one and first appears on the rail coping of the Bharhut stūpa.

The heavy overhanging wooden roofs of the original design have been retained, and they are still supported by roof struts. But how different the latter are from those found in the Kulu temples. They have now become one of the most highly ornamental features of the style.

The Krishna temple has only two roofs instead of three, otherwise, on plan and in style it is similar to the Bhyrab temple. The single-roofed wooden pavilion or mandapa in front of the Krishna temple is used in connection with the latter at festival times, when the image of Krishna is taken in procession, and other ceremonies are performed.

The town of Pashpatti illustrated in Fig. 17 is a picturesque collection of temples and shrines of all ages, situated on the banks of Baghmatti river, and about three miles north-east of Katmandu, the capital of Nepal. It is a famous place of pilgrimage and the Benares of Nepal. So holy is the place that the one great desire of the Nepali Hindu is to gasp out his last breath on the steps of the "ghat," with his feet lapped by the sacred stream. Most of the buildings are grouped on the western bank of the river, which is crossed by two picturesque bridges. They consist mainly of courts and squares arranged at different

\* Fig. 7 of First Paper, on "The Development of the Stūpa," published in the R.I.B.A. JOURNAL of 22 December 1928.



levels, and connected by numerous flights of stone steps. Picturesque pyramidal roofs cover the temples, the most important one rising above the others into a brilliant effect of carved wood-work and gold against the blue sky and distant snows. The temple courts are filled with a variety of images and shrines of different periods, while in front of the chief temple is a huge copper gilt image of the sacred bull Nandi, the vehicle of Siva. The wooden temples are in the same style as those at Patān and need no description here, but the row of masonry shrines shown in the fore-

ground of Fig. 17, are both interesting and instructive, as we have here a conventionalised model of a wooden pagoda-roofed shrine executed in brick and plaster. If we compare this type of brick temple with Hidimbā's wooden shrine (Fig. 6), it becomes quite obvious how the style originated. In fact some of the wooden pagodas shown on the opposite bank of the river (Fig. 17) are quite good enough for this purpose. Owing to the nature of brick and plaster, it was impossible to reproduce the heavy overhanging wooden roofs faithfully in this material, but nevertheless,

they are clearly indicated, and the uppermost roof is designed to represent a bell-shaped umbrella ornament crowned with a copper gilt finial. The finials are missing, but their style may be seen from those adorning the little shrines on the opposite bank. This style of temple usually built of stone, is not peculiar to Nepal, but is common in most parts of India where Buddhism or Jainism once flourished. It must be remembered that the style of the monuments erected by the followers of these two creeds in early times was the same in both cases, the only difference being



FIG. 17.—GENERAL VIEW OF PASHUPATI, NEPAL.

in the nature of the image enshrined within the temple. The Jains paid just as much attention to the *chhatravali* or umbrella ornament as the Buddhists and reproduced it in some form or other in every temple they built, and always placed a double or triple-canopied umbrella over the heads of the images of their numerous saints.

Prior to the sixth century A.D., Japan was a comparatively uncivilised country and the religion of the people was a primitive cult of the dead, of which the modern Shinto is a somewhat artificial revival. But, in the



seventh century, at the instigation of Prince Shotoku, Buddhist priests, builders and scholars arrived from Korea: Nara became the capital, and in a few years the Koreans founded the famous monastery of Horiuji, an historical event which marks the birth of Japan as a civilised power.

The Horiuji monastery is a very large one, and forms a good example of a mediæval Buddhist monastery, because the style of the original work seems to have been carefully retained in all subsequent rebuilding, and although, all the subordinate structures are only a few centuries old, they are, in all probability, perfectly reliable models of early Korean work. The earliest and most important buildings in the group are shown in Fig. 18, and consist of a fine double-storeyed gateway, an oblong temple or *kondo*, and a four-storeyed pagoda. These buildings are of wood, and built in the Korean style. The gateway stands just as it was first built, but the verandahs running round the ground floors of the *kondo* and the pagoda date only from the seventeenth century, and are to be regretted as they spoil the original graceful proportions of these two buildings. However, in spite of these additions, the wonderful grace and refinement of the work compel the most profound admiration. These three buildings form but a small part of the enormous monastery of Horiuji, but they are the only ones that unquestionably date from the seventh century. As in the Himalayan examples, the Japanese wooden pagodas are built on a raised masonry plinth from 4 to 6 feet above the ground and provided with a flight of stone steps in front, or on each of the four sides of the terrace. As usual, the room on the ground floor is the only portion of the structure put to any practical use, the upper galleries being merely "blind storeys," and purely ornamental. Running through the centre of the Horiuji pagoda, from floor to finial, is a mighty wooden staff or beam, 100 feet in height, 3 feet in thickness at its base, and tapering to 9 inches at the top. The five superimposed projecting wooden roofs are constructed round this staff in the same manner as the canopies of a *chhatravali* are grouped round the *yasti*, or umbrella staff. The base of the staff rests on the stone floor of the shrine chamber, and is provided with a tenon which fits into a socket hole cut in the stone floor so as to keep it in position. The top of the pole forms the lofty finial of the structure, and is ornamented with nine superimposed plain metal rings or *chattas*, and crowned by a conventionalised umbrella ornament of the same material. Each copper gilt ring is decorated with four bells, one on each side and they diminish in size as they approach the top. The umbrella finial is a larger and more elaborate affair than the nine simple *chattas* below it, because this crowning member represents the highest Heaven, the abode of Adi Buddha, just as we noticed in

the *chhatravali* adorning the Shambu-Nāth stūpa in Nepal (Fig. 7).\*

Like the Himalayan temples, the ridge beams supporting the projecting roofs, are decorated with bells, and the roofs are covered with tiles. In some of the more important temples and buildings in Japan, the tile work has been replaced by wooden tiles and ter-



FIG. 19.—YAKUSHIJI PAGODA, JAPAN

minals covered with thick copper plates, a custom found also in Malabar and Ceylon.

Near the ancient city of Nara stands the picturesque temple of Yakushiji, erected in 680 A.D. (Fig. 19). Here we have a development of the Horiuji pagoda, and in all probability, a work which represents one of the first Buddhist temples built by a Japanese architect. Its loftiness and daring originality is in marked contrast to the sombre serenity of the Korean model. Here too, for the first time, we find the roof struts and double brackets which subsequently became such

\* Fig. 7 of First Paper on "The Development of the Stūpa."



characteristic features of Japanese architecture. The umbrella finial of the Yakushiji temple is an exact copy of the one crowning the Horiuji pagoda. In his account of India in the seventh century, Hsien Tsiang expressly states that many of the famous Buddhist monuments which he visited were very lofty buildings, and all of them appear to have been surmounted by a *chhatravali* ornament of some kind. Some of the buildings he describes as being "several storeys in height, and crowned with copper-gilt *chattas* (umbrellas)." In this case, it is obvious that he is not referring to a stupa, but to a monastery or a temple built in the pagoda style, and presumably, decorated with an umbrella finial. That finials of this type were common enough in India at the time of his visit is proved by the number of existing stone models portraying them. A good example of this is shown in Fig. 17,\* a stone memorial stupa from Sarnath, near Benares. Plenty of similar examples also exist at Bodhi-Gaya, and around the Shambhu-Nath stupa in Nepal (Fig. 7).† It will be noticed that the conventionalised stone spire surmounting the *tee* of the Sarnath stupa is about as true a copy of the Korean *chhatravali* as is possible in stone. The nine super-imposed metal rings decorated with bells on each of the four sides, and the dome-shaped umbrella canopy on the summit are all faithfully reproduced. It seems that in the seventh

century, this was the usual type of *chhatravali* for all Buddhist monuments in India, whether stupas, temples, or monasteries, and hence the reason why they are found in the earliest Buddhist monuments of China and Japan.

In tracing the development of the stupa we have seen how the *chhatravali*, a simple architectural ornament consisting of a few super-imposed umbrellas only a few feet high, finally became transformed into a lofty pyramidal tower reaching to a height of a hundred feet or more, the stupa itself almost disappearing. There seems little doubt that the same thing happened with regard to the wooden temples of the Himalayas after the advent of Buddhism in these remote regions. At first, the builders were satisfied with a single umbrella canopy over the shrine chamber as in the Dalas example (Fig. 3), but as time went on and the building arts progressed, a desire was felt to make the temples more imposing by increasing their height and beautifying them with carved wood work. So additional canopies were added to the *chhatravali*, and more attention was paid to the ornamentation of the pillars, doors and windows, until at last, we find the temple assuming the form of a many-roofed pagoda, the *chhatravali* dominating every other architectural feature of the building, just as it eventually did in the case of the stupa.

## HIMALAYAN ARCHITECTURE.

### AUTHOR'S NOTE.

Since writing the article on "Himalayan Architecture" I have found in Professor Beal's *Buddhist Records of the Western World*, translated from the Chinese of Hsien Tsiang (A.D. 629), several important references which should have been included in my article, as they appear to me to prove conclusively that the so-called "Chinese Pagoda" did originate in India as I have endeavoured to show.

The Buddhist literature of China contains, amongst other valuable works, the records of the travels of certain Chinese Buddhist pilgrims who visited India in the early centuries of the Christian era. These records embody the testimony of independent eye-witnesses regarding the facts related in them, and having been faithfully preserved and allotted a place among the sacred books of China, their evidence may be regarded as thoroughly trustworthy. The first Chinese traveller whose name and writings have come down to us is Fa-Hsien (A.D. 400). The next is Sung-Yun (A.D. 518) and, lastly, the illustrious pilgrim Hsien Tsiang (A.D. 629).

In the following note, I have frequently had to use the word "pagoda," and as the term is a very ambiguous one, since it may mean either a Buddhist tomb, temple or monastery; or even a Jain, Hindu or Shinto temple, all of

which buildings belong to totally different styles of Eastern architecture; it seems necessary to explain here exactly what I mean by this word. My definition of a "pagoda" is as follows:—"A Buddhist temple, square on plan with a shrine chamber on the ground floor standing on a raised masonry basement with a flight of stone steps leading up to the entrance. Above the shrine, the walls of which are usually built of brick, is a storeyed tower mainly of wooden construction with widely projecting eaves which diminish in size as they reach the top of the building. The latter is surmounted by a metal umbrella finial known as a *chhatravali*; or a *hti* (*tee*). This ornament is supposed to represent the highest heaven of Buddhist cosmography."

The *tee* was not peculiar to Buddhist temples, it was the usual crowning ornament of the stupas, but as the latter were built of brick and plaster, or hewn out of the natural rock, the *tee* was generally executed in the same material. The latter brick and plaster stupas of Burma and Siam, however, are usually surmounted by a very elaborate metal *tee*, a far more imposing affair than the simple iron rod decorated with a number of superimposed copper gilt *chattas* (umbrellas), which prevailed in India in early times.

And now, after this digression, I will pass on to the references from the writings of the Chinese Buddhist travellers mentioned above.

The pilgrim Sung-Yun (A.D. 518) has left us a good

\* Fig. 17 of First Paper on Development of the Stupa.

† Fig. 7 of First Paper on Development of the Stupa.



description of a wooden pagoda which he saw in Peshāwar, the ancient capital of Gandhara, which was built by King Kanishka (first century A.D.), and which he calls the Tsioh-li Feou-thou (a pagoda with a surmounting pole).<sup>\*</sup> He relates how Kanishka, on seeing some children building a toy stūpa out of cows' dung, enquired what they were doing. The record states:—"One of the children raising himself in the air and turning towards the king, repeated a verse (in praise of Buddha and the king)." The king, much surprised at this miraculous event, built a pagoda over the spot. "Throughout the building he used carved wood; he constructed stairs to lead to the top. The roof consisted of every kind of wood. Altogether there were thirteen storeys; above which there was an iron rod, thirty feet high, decorated with thirteen (superimposed) gilded *chattas*. The total height was 700 feet." It is clear from this description that the pilgrim is describing a wooden pagoda like those still existing in Japan. He continues:—"Of all the pagodas of the Western world, this one is by far the first (in size and importance)." Hwei-Sang, a brother pilgrim who accompanied Sung-Yun to Peshāwar, was so impressed by the beauty of the Tsioh-li pagoda that he "employed a skilful artist to depict on copper the Tsioh-li pagoda and also the four principal stupas of Sākyamuni." These drawings, or engravings on copper, were doubtless taken back to China, where, in all probability, they served as models for some of the first Buddhist monuments erected in that country. In fact, the Chinese records expressly mention that "in the year A.D. 652, Hiuen-Tsiang caused a pagoda (*Feou-to*) to be constructed at the southern gate of the Hong-fuh temple, in which he finally deposited his sacred books and images for safety. The total height of this structure was 180 feet. It was built after the model of the Indian pagodas, and had five storeys, surmounted by a cupola." In all probability, the word cupola should be translated as *chhatravali*.

Sung-Yun tells us that "The Tsioh-li pagoda, since its erection, has been three times destroyed by lightning, but the kings of the country have each time restored it." No doubt the metal *chhatravali* was the cause of this. He also states that to the south of the Tsioh-li pagoda was a round tower (stūpa) 27 feet high. Hiuen Tsiang, who visited India about a hundred years later, also mentions both of these monuments.<sup>†</sup> He repeats the legend about Kanishka and the children, etc., and says the pagoda built by Kanishka was several storeys in height and surmounted by a *chhatravali*. But it is clear that both buildings were in ruins when he saw them, as further on he says:—"These two towers are still visible." He would not have made this remark if the pagoda and the stūpa had been standing in good preservation. At the beginning of the chapter, describing the Gandhara country, he says that at the time of his visit almost all the Buddhist buildings were in ruins, and that the heretics, as he calls them, had ousted the Buddhists from their ancient kingdom.

Then we have Fa-Hian's description of the famous Jetavana monastery as it appeared at the beginning of the

fifth century A.D. He says:—"The Jētavana *vihāra* originally had seven storeys. The monarchs of the surrounding countries and the people vied with each other in presenting religious offerings at this spot. They decked the place with flags and silken canopies (umbrellas); they offered flowers and incense, whilst the lamps shone all night long. A rat gnawing at the wick of one of the lamps caused it to set fire to one of the canopies, and this resulted in a general conflagration and the entire destruction of the seven storeys of the *vihāra*. This account indicates that the superstructure was of timber construction, and that the monastery was built in the "Pagoda style." Fa-Hian says the central shrine contained a very ancient sandal-wood image of the Buddha in a sitting posture, and that this image escaped destruction by fire. This was probably due to the walls of the shrine chamber, which was on the ground floor, being of brick or stone, as was usually the case with these wooden pagodas. With regard to this wooden image, he says, "This image was the very first made of all the figures of Buddha, is the one which all subsequent ages have followed as a model." He is, of course, merely repeating the local tradition he heard concerning it, but, nevertheless, it is probable that there is a good deal of truth in his statement, as the image in question was undoubtedly a very ancient one, and belonging as it did to one of the oldest and most important monasteries in India, the image may have been frequently copied in later times, as the oldest and most orthodox portrait figure of the Buddha, and thus helped to fix the type of Buddha image which from about A.D. 500 onwards became universal, and was introduced into every country where Buddhism took root. In early times wooden images, not only of Buddha but of Hindu deities also, seem to have been common in India. We are told that when Hiuen Tsiang returned to China in A.D. 645 he not only brought back with him a lot of Buddhist books and manuscripts, but also six images of Buddha. Of these, two were of gold, one of silver, and three of sandal-wood. It is extremely probable that one of the sandal-wood images was a copy of the Jētavana figure and may have served as a model in China.

Again, Hiuen Tsiang (A.D. 629) has left us a description of the Tiladaka monastery in the ancient kingdom of Magadha, the central shrine of which seems to have been constructed and designed on exactly the same lines as a typical Nepalese temple. He says, § "In the road facing the middle gate there are three *vihāras*, above each of which is a *chhatravali*, from which bells are suspended in the air, below they are constructed storey above storey, from the bottom to the top. They (the storeys) are surrounded by railings, and the doors, windows, pillars, beams, and staircases are all carved (and covered) with gilt copper in relief, the intervals being highly decorated. The central *vihāra* contains a standing image of Buddha about thirty feet high. On the left is an image of (the goddess) Tāra, and on the right one of Avalokitesvara Bōdhisattva. Each of these images is made of metallic stone." The word *vihāra* really means a monastery, but as every *vihāra* of any importance was provided with a temple enshrining an image of Buddha, the pilgrims use the word to denote both types of buildings,

\* Beal's *Buddhist Records of the Western World*, Vol. I, p. civ.

† Beal's *Life of Hiuen-Tsiang*, p. 216.

‡ *Buddhist Records of the Western World*, Book II, p. 100.

§ *Buddhist Records of the Western World*, Book VIII, p. 103.



but they seem to apply the word only to storeyed buildings. For instance, Hiuen Tsiang described the great brick temple at Bôdh Gâya as a *vihâra*. But it is not and never was a monastery. However, it is outwardly designed, in a conventional manner, to represent one, and, observing this, Hiuen Tsiang calls it a *vihâra*.

Lastly, in a note on the different kinds of buildings he noticed in the towns of India,\* Hiuen Tsiang speaks very highly of the design and construction of the monastic establishments, or *sanghâramas*, as they are called. He says:—"The *Sanghâramas* are constructed with extraordinary skill. A three-storeyed tower is erected at each of the four angles. The beams and the projecting heads are carved with great skill in different shapes. The doors, windows, and the low walls are painted profusely; the monks' cells are ornamented within but plain on the outside. In the centre of the building is a lofty hall. There are various storeyed chambers and turrets of different heights and shape, without any fixed rule. The doors open towards the east; the royal throne also faces the east." The references to the carved beam heads and painted doors and windows, and the fact that the towers were several storeys in height, indicate that the superstructures were usually built of wood in the "Pagoda style."

I venture to think the reader will agree with me that there is no shadow of doubt as to what "style of building" the pilgrims are describing, as there is only one style of Eastern architecture which answers to their descriptions, descriptions which were written at different periods

and quite independently of each other. It is not a case of one writer copying from the previous work of another, as we so often find in the works of Greek and Roman historians who have left us accounts of ancient India. If Fa-Hian's statement concerning the date of the Teioh-li pagoda is correct, and there is no reason to doubt it, then Buddhist temples, similar in style and construction to the Horiuji Pagoda in Japan, existed in India as early as the first century A.D., and possibly before that date. Whereas, according to the Buddhist records of China they were unknown in that country before the seventh century A.D. This in itself is sufficient proof that the so-called "pagoda," like the stupa and the Buddha image, found its way into China and Japan at a much later date, in fact, not until Buddhism had become firmly established in those countries, for the very good reason that prior to that date there was no demand or use for such buildings. Although Buddhist books began to be imported into China as early as 200 A.D., and the Chinese pilgrims whose names are cited above may not have been the first or only converts to visit India, the fact remains, that before Hiuen Tsiang's return to China (645 A.D.) Buddhist art or architecture does not appear to have had any influence whatever in that country. In fact, the Chinese records expressly state that such was the case. So that ends the matter, and the mystery of the origin of "Chinese Pagoda" may now be regarded as settled, once and for all time.

A. H. LONGHURST.  
*Archaeological Survey of India.*

## Correspondence

### MR. JOHN KEPPIE'S PENCIL DRAWINGS.

6 Pentrooke Gardens,  
Kensington, W.8.  
28 February, 1930.

DEAR SIR,—The drawings by Mr. Keppie, of which you gave reproductions in the JOURNAL† of the R.I.B.A., are remarkable both for skill and beauty. Can you tell me where the originals are, and whether there are other similar drawings of his (particularly in Fife, or East Lothian) visible or accessible elsewhere?

Yours faithfully,

J. W. MACKAIL  
(Hon. Associate).

### DINNER TO MR. ROBERT ATKINSON [F.].

It is interesting to hear that it has been decided to hold a dinner early in April to Mr. Robert Atkinson [F.], to commemorate his position as Director of Education at the Architectural Association School, after having

been actively connected with it for 16 years, first as Principal and then as Director, and the great work which he has accomplished for architectural education generally. It is proposed to invite a number of distinguished people to attend.

In order to ascertain approximately the number of old students and others likely to attend, so that adequate accommodation can be secured, the Secretary of the A.A. has sent out a preliminary notice stating that the actual date will be fixed when sufficient replies have been received to make it possible to ascertain the number likely to attend. It is proposed that tickets shall not cost more than 10s. each.

It is also proposed to publish, by subscription, a volume of works by Robert Atkinson, which will include not only drawings and photographs of finished buildings, but also preliminary sketches and possibly colour studies. Full particulars of which will be issued later.

Application to be made to the Secretary of the Association, 34-6 Bedford Square, W.C.

### ILLNESS OF MR. W. J. LOCKE.

Old members of the Royal Institute will have recently seen announced with great regret the serious illness of Mr. W. J. Locke, who was Secretary of the R.I.B.A. from 1897 to 1907. During his Secretaryship Mr. Locke won the affection and regard of the many members with whom he came into daily contact and who will earnestly hope for his speedy and complete recovery.

\* *Buddhist Records of the Western World*. Book II, p. 73.

† Vol. 37, No. 8, 22 February 1930. The drawings were lent only for the purpose of reproduction, and were returned to Mr. Keppie.—Ed.



## Department of Scientific and Industrial Research

### Building Research

#### THE CORROSION OF STEEL BY BREEZE AND CLINKER CONCRETES

The Building Research Station has, within the past year or two, published three reports on the use of slag, breeze and clinker as aggregate in concrete (Special Report No. 10, Bulletin No. 5 and Technical Paper No. 7). These reports, however, were concerned only with the "soundness" of these materials and with their suitability for incorporation in concrete mixes quite apart from corrosive tendencies. The reason for certain types of failure was elucidated and simple tests were described whereby it could be predetermined whether or not disintegration, cracking and/or excessive volume changes in the concrete product were likely to result from the use of a particular breeze or clinker.

A more recent report of the Building Research Station, now in the press, deals with the corrosive properties of breeze and clinker and therefore applies particularly to reinforced concrete work.

Investigations were made of the corrosive powers of five samples of breeze or clinker. The sulphur contents ranged from 0.24 per cent. to 1.62 per cent., and in physical properties the samples varied from a dense, vitrified clinker at one extreme, through samples which would be described as "breeze," containing a good deal of coke, to a very inferior aggregate, consisting of the clinker from a refuse destructor, comprising coke, partially fused glass, fragments of pottery and the variety of substances which would be expected in such a material. These aggregates, made into mortars with Portland cement, were tested in comparison with a mortar made of Portland cement and pure quartz sand, as a standard of corrosive power.

Four series of tests were made in various ways. The results were very consistent and showed that with increasing sulphur content of the aggregates the mortars became more and more corrosive. When the mortars high in sulphur were placed on steel plates and moistened, rusting commenced in a few hours, while sand mortars caused no rusting.

In one series of tests the dried mortars were crushed, packed around steel plates and then placed in an atmosphere of moist air; there was no addition of liquid water and the samples were under such conditions that there was no condensation in the ordinary sense. All the mortars, except those in which the sand and the clinker aggregate containing only 0.24 per cent. of sulphur were used, caused rusting. Possibly the fact that some breeze aggregates are capable of absorbing a good deal of moisture from the air had something to do with this, but, in any case, the experiment shows how steel in concrete containing breeze may rust seriously even under apparently "dry" conditions. The fourth series of tests was made by embedding plates of steel in concrete containing the aggregates, allowing an inch of cover all round. The blocks were placed out of doors in the open

for six weeks. When the blocks were then broken open the steel from the block made with destructor clinker was covered with rust. Even the concrete made with the best clinker of all (far better than can usually be obtained) had rusted 8 per cent. of the area of the steel plate embedded in it.

Further tests on the permeability of the mixtures showed that permeability had little to do with corrosion, for when sand was substituted for the finer portion of the breeze it was found that the permeability of the blocks was increased, due to the sand used not being equivalent in size to the dust removed. Yet the corrosive power was reduced, evidently due to the substitution of some inert material for some of the injurious breeze.

The main practical conclusion to be drawn from the work is that coal residues such as breeze and clinker must be regarded as definitely undesirable ingredients in concretes reinforced with ordinary steel or in contact with steel.

The only exception is when the sulphur and combustible contents are within certain limits. The limits which it would be necessary to impose would exclude all but an extremely small proportion of even the best qualities of clinker. Moreover, constant laboratory testing of batches would be required. In these circumstances there would be little or no economical advantage in using these aggregates.

In the interests of absolute safety it would seem desirable to abandon altogether the use of breeze and clinker as aggregates for concrete in contact with steel.

#### DISCOLORATION OF DISTEMPER.

A failure in the use of distemper may be of interest to members. The material used was a standard buff colour made by a well-known firm, which the writer has specified successfully for years, and is on the walls of several chemical laboratories. In this instance it was applied to laboratory walls, and began to turn black in a fortnight. The makers took the matter up and had an analysis made of the material but were unable to admit that there was anything wrong with it, but they contributed to the cost of removal and the walls were then painted. The moral is that when walls are decorated in situations liable to corrosive gases it is desirable to inform the makers of material specified and obtain from them some guarantee. All materials containing lead should be avoided in decorating laboratories, as the least trace of lead leads to blackening in the presence of certain gases present at times in the atmosphere of any room devoted to chemical experiments.

ALAN E. MUNBY [F.].



## Allied Societies

*(The attention of Members of the Allied Societies is particularly called to this page)*

### THE BERKS, BUCKS AND OXON ARCHITECTURAL ASSOCIATION

The eighth annual dinner of the Berks, Bucks and Oxon Architectural Association was held in the Small Town Hall, Reading, on 20 February. The President, Mr. H. Hutt, F.R.I.B.A., was in the chair, and there was a large and representative gathering. The guests of the Association were: Sir Banister Fletcher (President R.I.B.A.), Lady Fletcher, Mr. H. J. Gale, F.S.I. (Chairman of the Berks, Bucks and Oxon Branch of the Surveyors' Institution), Dr. S. Hastings, M.P., Lieut.-Col. P. A. Hopkins, O.B.E., Mr. T. A. Lloyd (President of the South Wales Institute of Architects), Mr. Ian MacAlister (Secretary R.I.B.A.), Mr. A. L. Roberts, F.R.I.B.A. (Hon. Secretary of the Hampshire and Isle of Wight Architectural Association), Mr. F. T. Robinson (President of the Reading and District Building Trades Employers' Association), and Dr. T. Franklin Sibby, D.Sc. (Vice-Chancellor of the University of Reading).

Mr. R. A. Rix, proposing "The Town and University of Reading," said they had a town with ancient traditions and a town with the youngest university in the country spreading out in its efforts and asking for £200,000 to further its objects. Those two combined together the dreams of old age and the effort of youth. Reading was the home of the Society of Architects and the University their actual headquarters. The Society felt particularly grateful to the town and the University, and if in any possible way they could help the town of Reading to further its efforts in regard to housing the people, making new streets and the preservation of rural England they could depend upon architects to do what they could in that direction.

Dr. Somerville Hastings, M.P., said that Reading had some fine pieces of architecture, and he was glad that the town was taking an interest in old monuments and had rescued from the hands of vandals the beautiful Watlington House. Speaking of housing schemes, Dr. Hastings said he knew that faults could be found with some of the houses, but he also knew the difficulties that had to be contended with. He had seen some of the housing schemes in different places, and it seemed to him that Reading's houses would contrast very well. The new houses on the Norcot estate were in particular on a beautiful site.

Dr. T. Franklin Sibby, who also responded to the toast, said he felt it to be a happy circumstance that at his first appearance as the guest of that branch Mr. Hutt should be in the chair. Mr. Hutt and his partners, and particularly the late Mr. Charles Smith, was closely associated with the University of Reading, and he hoped that association would long continue. He also hoped the association between the branch and the university would continue and that they might feel they were working for a common cause. He felt that the work of the university which he now represented and the universities he had worked in all his life—excluding the older universities of Oxford, Cambridge and of Scotland—had a task which was singularly like the task of architects. They were seats of learning and they were also institutions with a definite civic obligation. They had to find the means of rendering due service on the one hand to learning and on the other hand they had to serve the practical needs of the workaday world.

Mr. H. S. Rogers, proposing "The R.I.B.A. and its Allied Societies," said the Royal Institute was virtually recognised as the guide in the profession. Its daughter societies spread over the whole globe, and in the 94th year of its existence those affiliated societies numbered precisely 94. He coupled

with the toasts the names of Sir Banister Fletcher and Mr. Harry Hutt, to whom he paid tribute for their work for the Royal Institute.

Sir Banister Fletcher, responding to the toast, said that when he thought of the great art they exercised his mind went back through the ages and dwelt on a subject which he had much at heart, namely, the history of their craft. In Reading they had an old Abbey, but he thought the progress of events and extraordinary prosperity of the town had caused most of their older buildings to be carried away. That was, of course, often due to the march of progress. It seemed to him that Reading was a town which had no very great number of old buildings, but the surroundings of the district in which they practised were amongst the most beautiful in England, and it therefore behoved architects by means of town planning schemes to keep and preserve what they had left. Architects were doing a good deal of work without fee and reward, and they were willing to do more in regard to the panels of architects which were being set up in all parts of the country. Those panels were willing to give free advice on matters connected with the wellbeing of the country in regard to its architectural layout. Continuing, Sir Banister said the Royal Institute felt more and more the importance of the Allied Societies, who were really the backbone of the Institute and carried the traditions of their craft to the high standard of professional etiquette into all parts of the country. They existed, he concluded, for the advancement not of architects, but of architecture, and in doing so they put their ideals on a high plane.

Mr. Harry Hutt, after paying tribute to the work of the Honorary Secretary (Mr. E. S. Smith), said he was convinced that the Allied Societies were absolutely essential, not only for the benefit they gave to local districts, but for the benefit they were to the Institute itself. He would like to see every member of an Allied Society when his turn came to be prepared to accept office and carry on the work with no other object than that of the public good.

Lieut.-Colonel P. A. Hopkins proposed "The Building Trades."

Mr. F. T. Robinson, President of the Reading and District Building Trades Employers' Association, in response, referred to the formation of building and architects' panels. There was, he said, a good feeling existing between employers and operatives in the town, and he believed, in fact, that never before was there such a spirit of goodwill as at the present time. The building industry had set an example to other industries in the way it had settled its industrial problems generally. The war and the following years had not tended to produce the best in architecture or buildings. Architects and builders were not in any way to blame for that. The trouble was that so-called working-class houses had to be built in the cheapest way and in the shortest possible time. From an artistic and constructional point of view all present deplored the results which they saw up and down the country. He trusted, however, they had in some measure caught up with the debility created during the war period, and would soon be able to hand down to posterity buildings which would prove worthy and be of at least some artistic merit and stand the test of time.

Mr. T. T. Cumming proposed the health of "The Visitors," and the toast was acknowledged by Mr. J. F. Richardson.

### THE BIRMINGHAM ARCHITECTURAL ASSOCIATION

The Birmingham Architectural Association held their annual dinner on Friday, 22 February.

The company included the Lord Mayor (Alderman M. L.



Lancaster) and the Lady Mayoress, the City Surveyor (Mr. H. H. Humphries), Mr. Sydney D. Kitson (the Hon. Secretary of the Institute), Mr. H. V. Lanchester, Judge Tebbs, Mr. L. P. Gamgee (Professor of Surgery, Birmingham University), Mr. George Huggins (President, Birmingham Law Society), Mr. Charles H. Sitch, M.P., Mr. G. C. Lawrence (President of the Allied Societies' Conference) and Mr. Ian MacAlister (Secretary R.I.B.A.).

The Royal Institute of British Architects, said Mr. A. T. Butler, who presided, had added enormously to the status of the architect, and had done much to advance the study of architecture. It had a membership of over 10,000, including Students and Probationers, and not including the members in the Allied Societies. In 1909 the Town Planning Act was passed and the groundwork was provided by the Institute, whose great conference in that year was of paramount importance to the nation.

In proposing "The City of Birmingham," Judge Tebbs said that in deciding possession cases he had to inspect a number of houses in the Black Country, and he must say that the way in which some of the people were housed was a disgrace to civilisation. Such a state not only affected the health of the people, but it was a loss to the community owing to the increased expense incurred in the hospitals. In the past, Birmingham had led the way in municipal progress, and he was sure the Lord Mayor would go down in history if he could create a campaign for effectively tackling the slum question.

In acknowledging the toast, the Lord Mayor said he often wondered whether architects were proud of the tens of thousands of houses that were being built for the working classes of the country. (Cries of "No, we don't build them.") With regard to the slum question, he could tell Judge Tebbs that Birmingham was building twice as many houses as any other city in the country, and yet the demand for accommodation was still high. It was no good pulling down thousands of the back-to-back houses until they could find houses for the people elsewhere. It was a great and serious problem, and he was sure the members of the Association could be of great assistance to them.

"The Birmingham Association" was proposed by Mr. H. V. Lanchester (the winner of the competition for the premier design of the new Birmingham hospital), who asked what was before them. He would call them the organiser-engineer-architect. They were becoming responsible to a greater extent for the development of communal life on a large scale, and for the material demands of social welfare and economic services. The opportunities before them were great.

The toast was acknowledged by Mr. H. G. Wicks, vice-president of the Association.

#### THE LEICESTER AND LEICESTERSHIRE SOCIETY OF ARCHITECTS.

Over 100 members of the Society attended an At Home held in the Edward Wood Hall, Leicester, given by Mr. Walter Brand, the President, and his daughter on Friday, 7 February, 1930.

One of the features of the evening was the presentation of a Potted Pantomime, "The House that Jack Built," the artists being Messrs. E. D. O'Connor, G. A. Cope, T. W. Haïrd, S. H. Stahleford, M. R. Longmill, G. F. Owen, C. F. M. Keay, E. C. Mount, and A. E. Smith.

Others who assisted in entertaining were The Clef Quartette, Mr. G. H. Grocock, Mr. Reg. Bocking, Mrs. K. Bocking, Miss Monica Gaskell, Mrs. M. G. Anderson and Miss Ethel Chawner.

#### THE SOUTH WALES INSTITUTE OF ARCHITECTS. CENTRAL (CARDIFF) BRANCH.

On Wednesday, 12 February, a party of over 30 members of the School of Architecture Club, which is associated with

the South Wales Institute of Architects, Central (Cardiff) Branch and the Welsh School of Architecture at the Cardiff Technical College, visited Gloucester and Cheltenham. At Gloucester they were able to inspect the Cathedral and after lunch at the George Inn, Cheltenham, they paid a visit to the Sunningend Works of Messrs. H. H. Martin and Co., Ltd., Cheltenham, where they saw very many specimens of fine craftsmanship completed and in various processes. This work was in the nature of architectural decoration in various materials such as fibrous plaster, hard wood, metal, stone and marble, and showed clearly that where the opportunities arise craftsmanship of a very high standard is still available in this country.

Among those present were Mr. C. J. Bartlett, Chairman of the School of Architecture Club, Mr. H. J. Hughes, Secretary of the School of Architecture Club, Mr. R. H. Winder, M.A., F.R.I.B.A., Mr. Lewis John, M.A., B.Arch., A.R.I.B.A., Messrs. I. W. Richards, J. W. Bishop, J. P. Ward, and C. A. Thatcher, members of the Committee.

#### WESTERN BRANCH.

At the eleventh annual general meeting of the Western Branch of the South Wales Institute of Architects, held at the Hotel Metropole, Swansea, the members were entertained to tea by Mr. J. Herbert Jones, F.R.I.B.A., who relinquished the office of Chairman which he had held for the past two years. He was unanimously appointed as Honorary Secretary, an office which he filled for nine years prior to his election as Chairman in 1928.

The new Chairman is Mr. Oliver S. Portsmouth, A.R.I.B.A., and the Treasurer, Mr. G. R. H. Rogers, L.R.I.B.A. Mr. E. E. Morgan, A.R.I.B.A., was appointed Honorary Auditor for the ensuing year.

A unanimous vote of congratulation was accorded to the winners of the Civic Centre Competition, and it was generally agreed that the group of buildings to be erected in Victoria Park (in the opinion of the members the best and only possible site) would admirably uphold the Civic Dignity of the Town.

The following members were elected to serve on the Branch Committee:—

Fellows: Mr. Charles S. Thomas, F.R.I.B.A.; Mr. Edwin Smith, A.R.I.B.A. (Neath); Mr. Edward R. Brown, L.R.I.B.A.; Mr. J. T. Jones (Neath); Mr. H. A. Ellis, F.R.I.B.A.

Associates: C. W. Geddes; L. W. Devonald.

The officers elected to represent the West Wales Area on the General Council of the South Wales Institute of Architects were:—

Fellows: Mr. J. Herbert Jones, F.R.I.B.A.; Mr. O. S. Portsmouth, A.R.I.B.A.; Mr. Charles S. Thomas, F.R.I.B.A.; Mr. G. R. H. Rogers, L.R.I.B.A.; Mr. H. A. Ellis, F.R.I.B.A.; Mr. Edwin Smith, A.R.I.B.A. (Neath).

Associates: C. W. Geddes; Mr. L. W. Devonald.

The Retiring Chairman (Mr. J. Herbert Jones) then presented the prizes awarded to the successful students in the Annual Studentship Competitions as follows:—

Mr. D. Eric Stephens, first prize for the best essay on "The Aesthetic Value of Concrete as a Monumental Building Material." Mr. W. T. Evans (Haverfordwest), first prize for a set of Measured Drawings of St. David's Church, Hubberton, Penn. Mr. Elwyn J. Rees, first prize, and Mr. John Nicholls (Neath) second prize for designs for Combined Electric Railway Station and Bus Centre at Oystermouth.

#### WEST YORKSHIRE SOCIETY OF ARCHITECTS.

A meeting of the West Yorkshire Society of Architects was held at Leeds on 13 February, under the presidency of Mr. G. H. Foggitt, when an address was given by Mr. Walter M. Keesey on "Print Making and Collecting."

After touching lightly on the history of engraving as a means



of pictorial representation, Mr. Keesey went on to explain the reasons for the adoption of particular methods, and also the various processes employed. Etching, he said, was an attractive art, appealing especially to architects, and very suitable for the rendering of surfaces and textures of building materials. The greatest etchers were fond of introducing buildings into their compositions, as witness Piranesi's liking for architectural motives, and later as seen in the work of Alex. Haigh and Walcot.

Print collecting should appeal to them not only on account of its popularity, but because architects should be connoisseurs of decorative objects in general, so as to be able to advise their clients. There was also the chance that a judicious collection of prints if acquired at reasonable cost, might eventually bring a good return.

The lecturer having shown upon the screen examples of the work of a number of well-known artists, was accorded a warm vote of thanks, on the motion of Mr. G. H. Foggitt, seconded by Mr. Norman Culley.

### EXHIBITION OF ARCHITECTS' WORKING DRAWINGS.

An Exhibition of Architects' Working Drawings will be held in the R.I.B.A. Galleries from Thursday 20 March to Saturday 29 March 1930, inclusive.

The Exhibition will be open daily between the hours of 10 a.m. and 8 p.m. (Saturday 5 p.m.) and will include drawings lent by:—

- Mr. W. A. Forsyth  
(University College, Hull,  
New Boarding House for Rugby School).
- Mr. Edward Maufe,  
(Trinity College, Cambridge).
- Professor A. E. Richardson, F.S.A.  
(Mothercraft Training Hostel, Highgate Hill, N.)
- Messrs. Watson, Salmond and Gray  
(Extensions to Municipal Buildings, Glasgow).
- Dr. P. S. Worthington, F.S.A.  
(Masonic Temple, Manchester, etc.)

The exhibition is intended primarily for students of Architecture; they will be able to examine the drawings that a practising Architect hands to a contractor, and thus will be afforded an insight into the methods adopted in a modern Architect's office.

A *Special Students' Evening* will be held at the Exhibition on Thursday 20 March, 1930, at 8 p.m. All students are cordially invited to attend. It is hoped that the architects (or their representatives) who have lent exhibits will be present in order to explain the drawings to the students. Refreshments will be provided and no cards of admission are required.

### MODERN ARCHITECTURE.

By BRUNO TAUT.

We have to correct an error in our review of this volume in our issue of 25 January, where the reviewer states: "The Studio . . . has published a translation of Bruno Taut's book on Modern Architecture, which originally appeared in Germany."

This book was commissioned by the Studio and especially written for them last year by Mr. Taut. No German edition of the book existed at the date of publication by the Studio, though they have since sold an edition to a German house.

## Obituary

DONALD MCKAY STODDART [F].

Donald McKay Stoddart, whose death has carried off with startling suddenness through pneumonia at the early age of 54, was the youngest son of the late James Hastic Stoddart, LL.D., the then distinguished editor of the *Glasgow Herald*. The father's gifts as a writer, both in prose and poetry, were transmitted in the son to a love of the Arts, more especially of architecture, for which he showed an early bent.

Following general education at the High School, he was in due course apprenticed to the firm of Messrs. Honeyman and Keppie, at the same time following the evening course in architecture at the Glasgow School of Art, of which at that period the inspiring director was W. J. Anderson, the well-known author of *Italian Renaissance Architecture*, and part author with Phœbe Spiers of the *Architecture of Greece and Rome*.

With Honeyman and Keppie he remained for some further time until in 1898 he joined an office companion in a tour through Italy, the young architects' Mecca, returning with a budget of delightful drawings and sketches which show more especially his appreciation for and delicate rendering of detail and colour. Shortly afterwards, about 1899, he became the head of my small staff which, with increasing experience and ability, during my partnership with the late Campbell Douglas, and onwards under myself, he continued to direct until the later years of the War.

Stoddart was always a hard and enthusiastic worker and looked for a like service from those under him. But he had a sincere affection for and interest in the work of "the boys of the back office," not only there but for the School of Architecture, and was quick to recognise and encourage such as showed special ability, with, as the result, a corresponding regard for him on their part.

When called up for service in 1918, the last of the then increased staff to go and the only one to return, being at once beyond the age and from a chest delicacy unfitted for combatant work, he served till the Armistice in France in a Motor Transport Battalion. With demobilisation in prospect, I proposed that he should return as junior partner, an offer which he accepted with enthusiasm, and as such he renewed his close association with and active share in our work until it was ended, after 30 years' companionship, by his untimely death. By nature Stoddart was kindly and sympathetic to a degree, but modest and unassuming. It was probably in great part owing to the latter qualities that he was given so few opportunities for individual work. Some instances of these, mainly competition designs, seemed to lack success owing to a want of boldness in general conception, the proverbial failure to see the wood for the trees. But those works he carried through were characterised by sound design and construction, simple and refined detail and an essential fitness for their purpose.

Elected a Licentiate in 1910, on submission of one or two of these designs, he was passed by the Council to the Fellowship without examination in 1925.

ALEXANDER N. PATTERSON [F].



### PROBATIONERSHIP OF THE R.I.B.A.

#### EXAMINATIONS RECOGNISED.

Attention is called to the fact that the Council R.I.B.A. have decided to include in the list of examinations recognised for the Probationership R.I.B.A., the Preliminary Examination of the Surveyors' Institution and the Preliminary Examination of the Institution of Civil Engineers.

### R.I.B.A. FINAL EXAMINATION THESIS.

Attention is called to the fact that candidates will in future be required to state at the beginning or end of their Thesis the sources of their information, giving the titles of the books consulted.

Attention is also called to the fact that Town Planning has been added to the list of alternative subjects, viz. :—

Historical Architecture,  
Science as applied to buildings,  
Design, including decoration,

—which may be dealt with in a Thesis.

### R.I.B.A. INTERMEDIATE EXAMINATION.

#### IRISH CENTRE.

Belfast will be an additional centre for the R.I.B.A. Intermediate Examination provided that at least five candidates for examination at that centre are forthcoming on each occasion.

### THE DISCOLORATION OF WHITE LEAD PAINT ON EXTERNAL WORK.

The Science Standing Committee have been asked by the London Association of Master Decorators to assist them in the investigation of the causes of the discoloration of white lead paint on external work by asking members of the R.I.B.A. who have experienced trouble in this connection to submit particulars of such cases.

It is hoped that members who are able to give any information on the matter will communicate with the Secretary of the London Association of Master Decorators at Avenue Chambers, Vernon Place, Southampton Row, W.C.1.

### NEW BUILDING MATERIALS AND PREPARATIONS.

The Science Standing Committee wish to draw attention to the fact that information in the records of the Building Research Station, Garston, Watford, is freely available to any member of the architectural profession, and suggest that architects would be well advised, when considering the use of new materials and preparations of which they have had no previous experience, to apply to the Director for any information he can impart regarding their properties and application.

## Notices

### THE TENTH GENERAL MEETING.

The Tenth General Meeting (Ordinary) of the Session 1929-30 will be held on Monday, 17 March 1930, at 8.30 p.m., for the following purposes :—

To read the Minutes of the General Meeting (Ordinary)

held on Monday, 3 March 1930, formally to admit members attending for the first time since their election.

To present the Royal Gold Medal to Mr. Percy Scott Worthington, M.A.Oxon, Litt.D., F.S.A., F.R.I.B.A.

### COMPETITION FOR NEW R.I.B.A. BUILDING.

The Council have decided that the design of the new building for the R.I.B.A. shall be the subject of competition open to all members of the R.I.B.A. and its Allied Societies (with the exception of the Jury of Assessors and the Committee placed in the position of Promoters and the members of their staffs).

It has also been decided that the Jury of Assessors shall consist of five architect members of the R.I.B.A. to be selected by the President and approved by the Council. With a view to assisting the President in his selection, members are invited to submit to the Secretary the names of members whom they consider suitable and qualified to serve on the Jury.

### THE MISUSE OF POWER BY LOCAL AUTHORITIES.

From time to time cases have been brought before the notice of the Institute where officials of Local Authorities appear to have exceeded the statutory powers with which they are vested.

The Institute would like to have definite evidence of such cases, as without this they are unable to take effective action on behalf of their members.

Members of the Institute, having any such particulars, are requested to write to the Secretary giving details.

### R.I.B.A. ANNUAL DINNER, 1930.

The Annual Dinner will take place on Thursday, 15 May 1930, in the Guildhall, E.C. (by kind permission of the City Corporation). Full particulars will be issued to Members in due course.

### THE ANNUAL CONFERENCE OF THE R.I.B.A. AND ALLIED SOCIETIES.

All members and students of the R.I.B.A. and all members of the Architectural Association and of the Allied Societies are cordially invited to attend the Conference to be held in Norwich from 18 to 21 June 1930 inclusive. Further particulars will be issued in due course.

### MEMBERS' TOUR TO THE UNITED STATES AND CANADA.

In view of the success which attended the visit to the United States and Canada of a party of members of the R.I.B.A. last year, and as many members who were unable to avail themselves of that opportunity expressed a desire to undertake such a trip on a future occasion, it has been decided to organise a further party this year.

The numerous advantages to be gained by undertaking a visit to the United States and Canada from an architectural point of view will be obvious, particularly when the visit is made in company with fellow members of the Institute.

The suggested tour will include New York, Philadelphia, Washington, Detroit, Niagara Falls, Toronto, Ottawa and Montreal, and notes regarding the places of interest from an architectural standpoint, compiled by Mr. Percy E. Thomas, O.B.E., F.R.I.B.A., the leader of last year's party, will be available for members.



The duration of the trip will be approximately one month, and the cost, including cabin class accommodation on the Atlantic steamers, hotel accommodation in the United States and Canada, rail fares, etc., will be about £80. This amount is exclusive of meals ashore, gratuities, transfer of passengers and baggage between stations, steamers, hotels, etc., and sight-seeing trips.

The party will travel from Liverpool for New York by the Cunard Liner *Samaria* on 5 July, returning by the *Ascania* from Montreal to Plymouth and London on 25 July.

Relatives and friends of members will be welcomed.

Members interested are requested to apply to Mr. H. T. Leese, The Cunard Steamship Company, Ltd., 26-27, Cockspur Street, London, S.W.1, who will be pleased to forward a complete itinerary, etc. on request.

#### OVERSEAS APPOINTMENTS.

Members contemplating applying for appointments overseas are recommended to communicate with the Secretary R.I.B.A., who will supply them with any available information respecting conditions of employment, cost of living, climatic conditions, etc.

WILLIAM H. HAMILYN.

Hon. Sec. R.I.B.A., Salaried Members' Committee.

#### R.I.B.A. STATUTORY EXAMINATION FOR DISTRICT SURVEYOR AND THE EXAMINATION FOR BUILDING SURVEYOR.

The R.I.B.A. Statutory Examination for the Office of District Surveyor under the London Building Acts, and the Examination for Building Surveyor under Local Authorities, will be held at the R.I.B.A., London, on 7, 8 and 9 May 1930.

The closing date for receiving applications for admission to the Examinations, accompanied by the fee of £3 3s., is 16 April 1930.

Full particulars of the Examinations and application forms can be obtained from the Secretary R.I.B.A.

#### ELECTION OF MEMBERS, 7 APRIL, 1930.

An election of members will take place at the Business General Meeting to be held on Monday, 7 April. The names and addresses of the Candidates (with the names of their proposers) found by the Council to be eligible and qualified for membership according to the Charter and Bye-laws and recommended by them for election are as follows:—

##### AS HON. ASSOCIATES [2].

ALEXANDER: SIDNEY ARTHUR, M.A., Canon and Treasurer of St. Paul's Cathedral, 2 Amen Court, London, E.C.4. Proposed by the Council.

GOETZE: SIGISMUND CHRISTIAN HUMBERT, Grove House, Regent's Park, N.W.8. Proposed by the Council.

##### AS HON. CORRESPONDING MEMBERS [2].

PONTREMOLI: EMMANUEL, President of the Société Centrale des Architectes Français, Professor à l'école Supérieure des Beaux Arts à Paris, Inspecteur des Bâtimens et Palais Nationaux, Membre de l'Académie des Beaux Arts (Institut de France), 1 Rond Point, Bugeaud, XVème, Paris. Proposed by the Council.

SANO: DR. RIET, Lecturer of Imperial University, Tokyo, President of the Japanese Institute of Architects, Dean of Technical College of Nihon University, Tokyo, 160 Kojimachi, Koishikawa-ku, Tokyo, Japan. Proposed by the Council.

##### AS FELLOWS [18].

BENALYN: WILLIAM THOMAS, A.R.C.A. [A. 1911], 5 Lancaster Place, Strand, W.C.2; 17 Easy Row, Birmingham; 21 Charlotte Road, Edgbaston, Birmingham. Proposed by Professor Beresford Pire, W. Alexander Harvey and C. E. Bateman.

BROWN: COLONEL JOHN, C.B., C.R.E., D.S.O., T.D., J.P., D.L. [A. 1921], 83 St. Giles Street, Northampton; Harpole Grange, Northampton. Proposed by R. J. Williams, J. Alfred Gotch, and H. Norman.

BUTLER: CYRIL GEORGE [A. 1921], Architects' Department, Temple Fortune House, Golders Green, N.W.; 33A The Parade, Golders Green, N.W.; 221 Hampstead Way, Golders Green, N.W.11. Proposed by W. E. Vernon Croppson, C. H. James, and D. Barclay Niven.

COBE: ROBERT STANLEY, M.C. [A. 1924], P.O. Box 28, Nairobi, Kenya Colony. Proposed by E. J. Gosling, W. Harding Thompson, and Joseph Hill.

CULLEN: ALEXANDER, F.S.I., F.S.A. (Scot.) [A. 1920], 88 Canlow Street, Hamilton, Scotland; Invercoe, Uddingston, Lanarkshire. Proposed by John Keppie, Wm. B. Whittle, and Andrew Ballou.

HUGHES: HENRY CASTREE [A. 1921], Tunwell's Court, Trumpington Street, Cambridge; Garner Cottages, Grantchester, Cambridge. Proposed by Sydney D. Kinson, H. H. Dunn, and Theodore Pyle.

OWEN: REYNOLD WYNN [A. 1901], Euston Station, London, N.W.1; Stacey's, Harwoods Road, Watford, Herts. Proposed by the Council under By-law 2(d).

ROLLE: ROBERT LESLIE [A. 1920], Aberdeen School of Architecture, Robert Gordon's College, Aberdeen; 375 Union Street, Aberdeen; Camloun, Cults, Aberdeen. Proposed by Robt G. Wilson, junr., J. A. O. Allan, and George Watt.

SOMERVILLE: WILLIAM LYON [A. 1928], 3 Bloor Street West, Toronto; 209 Oriole Parkway, Toronto. Proposed by V. D. Hornbough, Henry Sprout, and Ernest R. Ralph.

SURMAN: JOHN BURGESS [A. 1909], 17 Easy Row, Birmingham; 45 Selwyn Road, Edgbaston, Birmingham. Proposed by W. Alexander Harvey, Edwin F. Reynolds and C. E. Bateman.

WOOD: WILLIAM WALTER [A. 1921], 8 Sunset Terrace, Plymouth; Down Thomas, Plymouth. Proposed by Howard Robertson, H. S. Goodhart-Rendel and A. C. A. Norman.

WORTHINGTON: JOHN HUERT, O.B.E., M.A., Hon. A.R.C.A. [A. 1921], 128 Oxford Road, Manchester; The Pannier, Alderley Edge, Cheshire. Proposed by Francis Jones, Walter Tapper and Sir Giles Gilbert Scott.

and the following Licentiates who have passed the qualifying Examination:—

CIRREY: HAROLD WYNNE, F.S.I., 51 Catherine Street, Westminster, S.W.1. Proposed by W. Campbell Jones, Sydney Tatchell and Bernard Dickson.

HOLMES: ARTHUR HERBERT, Tower Buildings, 99 High Street, Southend-on-Sea, Brick House Farm, Fitch, Essex. Proposed by Sir Charles A. Nicholson, Henry W. Allardyce, and Percy G. Hayward.

KESTIVEN: LACORUE, Assistant Architect, Public Works Department, Selangor, Federated Malay States. Proposed by W. F. Hedges, O. F. Savage, and C. G. Boucher.

ROBERTS: FREDERICK ANSON, Earl Chambers, Mold, "Rusholme," Mold. Proposed by Gwosny R. Griffith, G. A. Humphreys, and Richard Hall.

and the following Licentiates who are qualified under Section IV, Clause 4 (c) (ii) of the Supplemental Charter of 1925:—

CAMPBELL: WILLIAM, 6 Pall Mall, Hanley, Stoke-on-Trent, Victoria Road, Shelton, Stoke-on-Trent. Proposed by R. T. Longden, J. H. Beckett, and Elijah Jones.



SNOWDEN: THOMAS, County Buildings, Land of Green Ginger, Hull, 1 Salisbury Street, Hull. Proposed by J. Malcolm Dessor, G. Dudley Harbron, and Frederick J. Horth.

#### AS ASSOCIATES [43].

BOON: GEOFFREY MAURICE [Final], "Nashdom," Hope Road, Prestwich, Manchester. Proposed by J. Theo. Halliday, Paul Ogden, and John Swarbrick.

BRADBURY: RONALD, B.A. Hons. (Arch.), Manchester. (Passed five years' course at the School of Architecture, Victoria University, Manchester. Exempted from Final Examination after passing Examination in Professional Practice), Taxal Gate, Whaley Bridge, Stockport. Proposed by Francis Jones, J. Theo. Halliday, and Percy S. Worthington.

BRENCHELEY: ARTHUR REGINALD [Final], "Cumshaw," Trinity Road, Gillingham, Kent. Proposed by Professor A. E. Richardson, G. Topham Forrest, and Alexander G. Bond.

BRETNALL: RALPH HERBERT [Final], 28 Victoria Park, Fishponds, Bristol. Proposed by Sir George H. Outley, G. C. Lawrence, and G. D. Gordon Hake.

BRIGHT: GEORGE EDWARD [Final], 49 Hilldrop Road, Tufnell Park, London, N. Proposed by Professor A. E. Richardson, Sir Edwin L. Lutyens, and Albert J. Thomas.

BROWN: COLLINGS WILLIAM [Special], Public Works Department, Union Buildings, Pretoria, South Africa. Proposed by J. S. Cleland, J. Lockwood Hall, and J. G. H. Holdgate.

BUTLER: RONALD MCCONNELL (Passed five years' joint course at the Birmingham School of Architecture and the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice), Redclyffe, Halesowen, nr. Birmingham. Proposed by Howard Robertson, Gilbert H. Jenkins, and the Council.

CARTER: EDWARD JULIAN, B.A. Cantab. (Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice), 4 Oakley Street, Chelsea, S.W.3. Proposed by Howard Robertson, Charles Sydney Spooner, and A. H. Moberly.

CASSIDY: GEORGE ARTHUR (Passed five years' course at the Edinburgh College of Art. Exempted from Final Examination after passing Examination in Professional Practice), 1, Corsorphine Park Gardens, Corsorphine, Midlothian. Proposed by Jn. Begg, E. A. Jamieson, and James A. Arnott.

CHAPLIN: JOHN PERCIVAL [Final], 22 Weaponness Valley Road, Scarborough. Proposed by J. Henry Pitt, G. Dudley Harbron, and Alexander G. Bond.

DOWER: JOHN GORDON, B.A. Cantab. [Final], 66 Willfield Way, London, N.W.11. Proposed by C. Cowles-Voysey, Professor Bernsford Pite, and H. S. Chorley.

DUFFY: THOMAS [Special], 46 Third Avenue, Heston, Bolton. Proposed by S. Wilkinson, John B. Gass, and Arthur J. Hope.

FLETCHER: JANET (MISS) (Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice), 32, Camden Hill Square, London, W.8. Proposed by Henry M. Fletcher, Howard Robertson, and J. Murray Easton.

GRAYSON: ARTHUR BELLHAM (Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice), The Manor, Halesworth, Suffolk. Proposed by Niel Martin-Kaye, Howard Robertson, and Robert Atkinson.

HASKINS: ALLAN DANIEL AITKEN [Final], 16 Sampson Road,

Sparkbrook, Birmingham. Proposed by Philip B. Chatwin, Ernest C. Bewlay, and F. Barry Peacock.

HUGHES: JOHN LESLIE, Dip. Arch. (Liverpool). (Passed five years' course at the Liverpool School of Architecture, University of Liverpool. Exempted from Final Examination after passing Examination in Professional Practice), 5 Edge Lane, Edge Hill, Liverpool. Proposed by Professor C. H. Reilly, Leonard Barnish, and T. Taliesin Rees.

JOHNSON: ALLAN, Dip. Arch. (Leeds) [Final], c/o 106 Hendon Way, Cricklewood, N.W.2. Proposed by H. V. Lancaster, T. A. Lodge and Victor Bain.

KEMP: SIDNEY JAMES, M.M. [Final], Tilehurst, Farley Road, Selodon, South Croydon. Proposed by Maxwell Ayrton, Professor A. E. Richardson, and Charles D. Hawley.

KININMONTH: WILLIAM HARDIE (Passed five years' course at the Edinburgh College of Art. Exempted from Final Examination after passing Examination in Professional Practice), Camborne Hotel, 62 Leicester Square, London, W.2. Proposed by Jn. Begg, C. D. Carus-Wilson, and F. C. Mears.

MACDONALD: HUGH SINCLAIR (Passed five years' course at the Edinburgh College of Art. Exempted from Final Examination after passing Examination in Professional Practice), The Rowans, Princes Street, Thurso, Caithness. Proposed by Jn. Begg, C. D. Carus-Wilson, and F. C. Mears.

McMULLEN: ALEXANDER LAWRENCE, B.A. Cantab. [Final], 32 Evelyn Mansions, Carlisle Place, S.W.1. Proposed by J. Murray Easton, E. Stanley Hall, and Howard Robertson.

MARTIN: JOHN LESLIE (Passed five years' course at the School of Architecture, Victoria University, Manchester. Exempted from Final Examination after passing Examination in Professional Practice), Holmleigh, Bramhall Lane, Bramhall, Cheshire. Proposed by J. Theo. Halliday, Francis Jones, and John Swarbrick.

MAYNARD: FREDERICK JAMES [Final], 158 Pinner Road, Harrow, Middlesex. Proposed by Gilbert H. Jenkins, W. E. Riley and M. H. Baillie Scott.

MURRAY: JAMES MACKIE (Passed five years' course at the Edinburgh College of Art. Exempted from Final Examination after passing Examination in Professional Practice), 5 Dick Place, Edinburgh. Proposed by Jn. Begg, F. C. Mears and C. D. Carus-Wilson.

NEIL: CHARLES WARREN [Final], "Langley," 14 Valkyrie Road, Westcliff-on-Sea, Essex. Proposed by Niel Martin-Kaye, Herbert R. Cowley and W. Beswick.

NISBET: JOHN ATHELSTAN VICTOR, B. Arch. Sydney (Passed five years' course at Sydney University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice), c/o The National Bank of Australasia, Ltd., 7 Lothbury, E.C.2. Proposed by Major Hubert C. Corlette, J. A. Gotch and T. J. Rushton.

PATKER: VITHAL MUKUND (Passed five years' course at the University of London School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice), 27 Narcissus Road, N.W.6. Proposed by Professor A. E. Richardson, C. Lavett Gill and Arthur Stratton.

PHELIPSON: BEATRIX JANET (MISS), B.A. London (Passed five years' course at the University of London School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice), College House, Dollis Avenue, Finchley, N.3. Proposed by Professor A. E. Richardson, Stanley C. Ramsey and Matthew J. Dawson.

PRICE: GROFFREY LANGFORD [Final], 15 Harley Terrace, Gosforth, Newcastle-on-Tyne. Proposed by Percy Thomas, Harry Teather and T. Alwyn Lloyd.



**RANDALL:** GERALD FRATNE, B.A. Eng. Camb. (Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice), Westmoot, Tillington, Petworth, Sussex. Proposed by Howard Robertson, J. Murray Easton and Robert Atkinson.

**REA:** HERBERT FRANCIS [Final], Lakemead, Totnes, Devon. Proposed by Fred. Harrild, Professor S. D. Adshead and Stanley C. Ramsey.

**SEGAR-OWEN:** GODFREY JOSCELYN SEGAR [Final], Palmyra Square Chambers, Warrington, Cheshire. Proposed by Geoffrey Owen, W. Curtis Green and Professor C. H. Reilly.

**SHAW:** ROBERT [Final], Main Street, Cottingley, Bingley, Yorkshire. Proposed by G. H. Foggitt, B. R. Gribbon and Colonel Albert E. Kirk.

**SHEPHERD:** GEORGE HENRY [Final], c/o 31 Stubley Road, Heckmondwike. Proposed by G. H. Foggitt, B. R. Gribbon and Colonel Albert E. Kirk.

**SMITH:** CHARLES WILLIAM JAMES (Passed five years' course at the University of London School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice), Electric House, Station Road, Chingford, London, E.4. Proposed by Professor A. E. Richardson, Arthur Stratton and Matthew J. Dawson.

**SOMAKE:** ELLIS EDWARD (Passed five years' course at the University of London School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice), 17 Hendon Way, Cricklewood, N.W.2. Proposed by Professor A. E. Richardson, Thos. S. Tait and Sir John J. Burnet.

**STANLEY:** LESLIE STUART, M.A. Camb. (Special), 16 Cole Park Road, Twickenham, Middlesex. Proposed by Professor A. E. Richardson, Arthur Stratton and Major Charles F. Skipper.

**STEELE:** FRANK REGINALD [Final], "Newlands," Stockton Brook, Stoke-on-Trent. Proposed by R. T. Longden, J. H. Beckett and Elijah Jones.

**TASSELL:** GEORGE EDWARD [Final], "Alnville," Tillington Stafford. Proposed by E. Bower Norris, J. Theo. Halliday and W. H. Hobday.

**TAYLOR:** GEORGE SWAN [Special], 35 Cornely Bank Road, Edinburgh. Proposed by Sir G. Washington Browne, T. F. MacLennan and Geo. D. MacIven.

**WESTERMAN:** ALBERT EDWIN (Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice), 88 St. James's Avenue, Beckenham, Kent. Proposed by A. S. R. Ley, Howard Robertson and J. Murray Easton.

**WHEELER-CARONCHIEL:** SAMUEL DENNIS (Passed five years' course at the University of London School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice), 22 Portman Street, W.1. Proposed by E. B. Houre, M. Wheeler and W. Courtenay le Maître.

**YOUNG:** WILLIAM EDWARD [Special], 16 Leyburn Road, Mooton Estate, Fallowfield, Manchester. Proposed by A. Nelson Bromley, Harry G. Watkins and Paul Ogden.

and experience of the particular questions, have been asked to express their opinions upon them. The scheme is based upon that adopted by the Surveyors' Institution.

The identity of the member seeking the information will not be disclosed, but the replies published will be signed by the members who have supplied them.]

#### Query No. 5.

Can you give me a formula for a durable whitewash for external use?

#### Reply to Query No. 5.

The Bureau of Lighthouses, Department of Commerce, Washington, issues a document which describes what is generally known as Government Formula for Whitewash.

A verbatim transcript is as follows:—

The following formula for whitewashing has been found to answer on wood, brick and stone, nearly as well as oil paint and is much cheaper:—Stake half a bushel of unslaked lime with boiling water, keeping it covered during the process. Strain it and add a peck of salt dissolved in warm water; 3 lb. of ground-rice put in boiling water and boiled to a thin paste; half a pound of powdered Spanish whiting, and a pound of clear glue dissolved in warm water, mix these well together, and let the mixture stand for several days. Keep the wash thus prepared in a kettle or portable furnace and when used put it on as hot as possible with painters' or whitewash brushes.

The following simpler formula for mixing whitewash when properly made and put on gives a white that does not easily wash or rub off, viz., To 10 parts of best freshly slaked lime add one part of best hydraulic cement; mix well with salt water and apply quite thin.

G. N. KENT [L.].

At the request of several members, copies of the questions and answers are now printed as separate leaflets and can be obtained free on application to the Secretary.

## Competitions

### ACCRINGTON: NEW POLICE AND FIRE STATIONS

The Accrington Corporation invite architects to submit, in open competition, designs for new Police and Fire Stations.

Assessor: Mr. Herbert J. Rowse [F.].

Premiums: £250, £150 and £100.

Last day for receiving designs, 31 March 1930. Conditions of the competition may be obtained on application to the Town Clerk, Town Hall, Accrington. Deposit £2 2s.

### CHELMSFORD: PUBLIC LIBRARY AND MUSEUM.

The Chelmsford Corporation invite architects to submit, in open competition, designs for a New Public Library and Museum.

Assessor: Mr. H. V. Lanchester [F.].

Last day for receiving designs, 14 June 1930.

Conditions of the Competition may be obtained on application to Mr. G. E. Barford, Town Clerk, Town Clerk's Office, Chelmsford. Deposit £1 1s.

### CLYDEBANK: WAR MEMORIAL.

The Competitions Committee desire to call the attention of Members to the fact that the conditions of the above competition are not in accordance with the Regulations of the R.I.B.A. The Competitions Committee are in negotiation with the Promoters in the hope of securing an amendment. In the meantime Members should not take part in the competition.

## Queries and Replies

[A large number of questions on points of professional practice and technical interest are addressed to the Practice and Science Standing Committee and to other Committees of the Institute.]

The Council, on the recommendation of the Science Standing Committee, have decided to adopt the procedure of publishing such queries in the JOURNAL when on matters of general interest, together with the replies of those members who, having special knowledge



## LIVERPOOL: PROPOSED PIER HEAD IMPROVEMENTS.

The Liverpool City Council propose to offer premiums of 1,000 guineas and 500 guineas in connection with a competition for the improvement of the amenities of the Pier Head. [Conditions are not yet available.]

## WEST HARTLEPOOL: OPEN AIR SCHOOL.

The West Hartlepool Education Committee have decided to hold a competition for an open air school, for which Mr. F. Willey, the County Architect, will be the Assessor. [Conditions are not yet available.]

## Members' Column

## MR. J. ARCHIBALD LUCAS

Mr. J. ARCHIBALD LUCAS, F.S.I., F.R.I.B.A., Architect and Surveyor, of Guildhall Chambers, High Street, Exeter, has taken into partnership Mr. Douglas Charles Langford, F.S.I., of "Gwithian," Broad Lane, Bracknell, Berks. The style of the new firm will be "Lucas & Langford."

## PARTNERSHIP OR PRACTICE WANTED.

Yotson Architect with general experience is willing to consider purchasing an architectural practice or partnership. Must be in London area.—Apply Box 3330, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

## APPOINTMENT OF DEPUTY COUNTY ARCHITECT FOR KENT.

The Kent County Council on 16 February 1930, appointed Mr. Sidney H. Loweth, A.R.I.B.A., M.R.San.I., Deputy County Architect.

## TO LET.

ARCHITECT'S OFFICES to be let by Member [F.]. One large room, one smaller with waiting lobby and various cupboards, forming self-contained suite; good position and light; resident housekeeper; adjoining Bedford Row, W.C.1. Rent £60 per annum, inclusive rates.—Apply Box 3330, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

## ARCHITECTURAL BOOKS.

For disposal privately by the widow of an architect [F.], recently deceased, a number of books upon Architecture and the Arts (some rare), also some office furniture. Inspection London any time.—Apply Box 4330, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

## Minutes X

## Session 1929-1930.

At the Ninth General Meeting (Ordinary) of the Session, 1929-1930, held on Monday, 3 March 1930, at 8 p.m.

Sir Banister Fletcher, F.S.A., President, in the Chair.

The attendance book was signed by 24 Fellows (including 7 members of Council), 20 Associates (including 3 members of Council), 3 Licentiates (including 1 member of Council), 1 Hon. Associate and a large number of visitors.

The Minutes of the Ordinary General Meeting held on 17 February 1930, having been published in the JOURNAL, were taken as read, confirmed, and signed as correct.

The Hon. Secretary announced the decease of:—

Charles H. Moore, Professor of Art and Director of the Fogg Art Museum of Harvard University, elected an Hon. Associate 1910.

William Samuel Alfred Emden, transferred to Fellowship Class 1925.

Edward Percy Thompson, elected Associate 1882.

John Stalker, transferred to Licentiate Class 1925.

and it was Resolved that the regrets of the Institute for their loss be entered on the Minutes and that a message of sympathy and condolence be conveyed to their relatives.

The following member attending for the first time since his election was formally admitted by the President:—

Mr. Hugo R. Bird [F.].

The Secretary announced that the Council had nominated for election to the various classes of membership the candidates whose names are published in this issue of the JOURNAL.

The Chairman announced that by a resolution of the Council the following had ceased to be a member of the Royal Institute:—

*An Associate*

Cyril John Crossman.

Mr. Frank Pick having read a paper on "The Design of Modern Railway Stations in Europe and America," a discussion ensued, and on the motion of the Rt. Hon. Lord Aberconway, P.C., seconded by Sir H. A. Walker, K.C.B., a vote of thanks was passed to Mr. Frank Pick by acclamation and was briefly responded to.

The proceedings closed at 9.45 p.m.

\* This paper will be published in the next issue of the JOURNAL, 22 March.

## ARCHITECTS' BENEVOLENT SOCIETY

(Insurance Department).

## HOUSE PURCHASE SCHEME

(for property in Great Britain only).

The Society is able, through the services of a leading Assurance Office, to assist an Architect (or his client) in securing the capital for the purchase of a house for his own occupation, on the following terms:—

## AMOUNT OF LOAN.

Property value exceeding £666, but not exceeding £2,500, 75 per cent. of the value.

Property value exceeding £2,500, but not exceeding £4,500, 66½ per cent. of the value.

The value of the property is that certified by the Surveyor employed by the Office.

RATE OF INTEREST, 5½ per cent. gross.

## REPAYMENT.

By means of an Endowment Assurance which discharges the loan at the end of 15 or 20 years, or at the earlier death of the borrower.

## SPECIAL CONCESSION TO ARCHITECTS.

In the case of houses in course of erection, it has been arranged that, provided the Plan and Specification have been approved by the Surveyor acting for the Office, and the amount of the loan agreed upon, and subject to the house being completed in accordance therewith, ONE HALF of the loan will be advanced on a certificate from the Office's Surveyor that the walls of the house are erected and the roof on and covered in.

NOTE.—In 1928, over £20,000 was loaned to architects under this scheme, and as a result over £100 was handed to the Benevolent Fund.

If a quotation is required, kindly send details of your age next birthday, approximate value of house and its exact situation, to the Secretary Architects' Benevolent Society, 9 Conduit Street, London, W.

## R.I.B.A. JOURNAL.

DATES OF PUBLICATION.—1930.—22 March; 12, 26 April; 10, 24 May; 7, 21 June; 12 July; 9 August; 20 September; 18 October.



# Journal of the Royal Institute of British Architects

THIRD SERIES

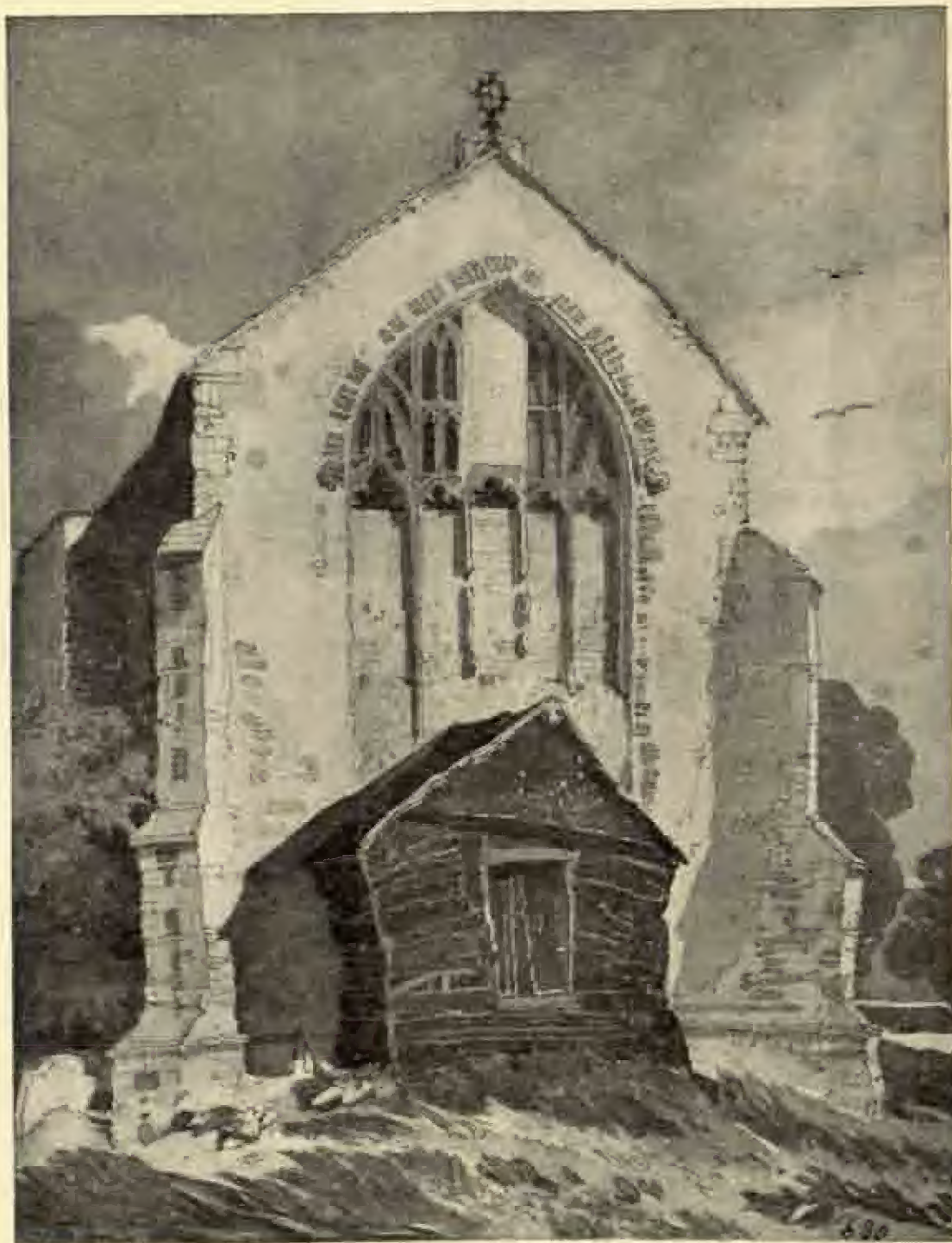
VOL. XXXVII. No. 10

22 MARCH 1930

## Contents for 22 March 1930

	Page
UPTON CHURCH, NORFOLK: EAST END. By John Sell Cotman . . . . .	<i>Frontispiece</i>
THE DESIGN OF MODERN RAILWAY STATIONS IN EUROPE AND AMERICA. By Frank Pick, Managing Director to the Underground Group of Electric Railway Companies . . . . .	319
DISCUSSION . . . . .	333
THE LATE PROFESSOR CHARLES H. MOORE, A.M., HON. A.R.I.B.A. By Professor W. R. Lethaby . . . . .	337
REVIEWS:	
ROYAL COMMISSION ON HISTORICAL MONUMENTS (ENGLAND). By Walter H. Godfrey [F.] . . . .	338
SZUKALSKI: PROJECTS IN DESIGN, SCULPTURE AND ARCHITECTURE. By R. A. Duncan [A.] . . . .	338
CORRESPONDENCE:	
THE DESIGN OF MODERN RAILWAY STATIONS IN EUROPE AND AMERICA. By Donald S. Prosser [A.] . . . .	339
EXHIBITIONS OF COMPETITIONS DESIGNS. By G. Wyville Home [A.] . . . .	339
CALTON CRAIG SITE, EDINBURGH. By the Royal Incorporation of Architects in Scotland . . . . .	340
REGISTRATION OF ARCHITECTS. By Major Harry Barnes [F.] . . . .	341
DEATH OF LORD BALFOUR (HONORARY FELLOW) . . . . .	349
ROYAL GOLD MEDAL . . . . .	349
CHARING CROSS BRIDGE . . . . .	349
AUSTRALIAN ARCHITECTURAL STUDENTS' CLUB (IN LONDON) . . . . .	349
ALLIED SOCIETIES:	
ESSEX, CAMBRIDGE AND HERTS SOCIETY OF ARCHITECTS . . . . .	350
SOUTH WALES INSTITUTE OF ARCHITECTS . . . . .	350
WEST YORKSHIRE SOCIETY OF ARCHITECTS . . . . .	351
NOTES FROM MINUTES OF COUNCIL . . . . .	353
ELECTION OF STUDENTS R.I.B.A. . . . .	354
R.I.B.A. ATHENS BURSARY 1930 . . . . .	354
NOTICES . . . . .	354
COMPETITIONS . . . . .	355
MEMBERS' COLUMN . . . . .	356
MINUTES . . . . .	356
A.B.S. SCHEME OF INSURANCE . . . . .	356





UPTON CHURCH, NORFOLK: EAST END.  
By John Sell Cotman  
From the collection of R. H. Kitson, Esq.





GRAND CENTRAL STATION, NEW YORK

## The Design of Modern Railway Stations in Europe and America

BY FRANK PICK, MANAGING DIRECTOR TO THE UNDERGROUND GROUP OF ELECTRIC RAILWAY COMPANIES

[Read before the Royal Institute of British Architects on Monday, 3 March 1930.]

A RAILWAY station is a place at which passengers join or leave trains. It is a place of arrival and departure, for trains as well as for passengers, two somewhat diverse units of which designers must take cognisance, causing a railway station to fall into two distinct parts, the passenger-concourse and the train-shed, to each of which a different measure must be applied if they are to be apt and fit for their purpose.

But a railway station is also something more. It is the modern gateway through which citizen and

visitor alike enter and withdraw from the city. Before the era of railways the way in and out of a city was always at the boundary where some main road converged upon it, and there it was customary to build a gateway for defence and protection, but even when such gateway ceased to have any value for either purpose, because gunpowder had made the weapon of the attacker supreme over the shield of the defender, a gateway was often still built and retained. At the approach to Siena from the north, beside the sharp-angled bastions of the



Medicean fortress, there is a fine stone archway straddling the road and sadly obstructing the traffic, for it permits of use by a single vehicle only at a time, the Porta Camollia. Its outer face is high and magnificent, but immediately behind there is an inner face, which is low and would be forbidding were it not for a fresco which covers the plain stonework and seems to be set in the frame of the outer arch, a splendid advertisement for the city, telling of its religious disposition.

Now that the railway has brought its roads through the walls and across the boundaries of cities, the gateway has curiously enough reared itself as near to the centre as it can economically get, and a great deal nearer than it aesthetically should, and the conception of the gateway has appropriately and agreeably influenced station design. So far as the boundary of the city is concerned, in these days it is impossible almost to mark it—the city sprawls out over the country so recklessly.

But a railway station is something more still. It has become a place of public resort and might become even more a place of public resort if this conception were allowed free play and the station were made more hospitable and attractive. How often must each citizen attend at the railway station for his own travel, or to welcome or speed another's travel, and how much is the pleasure and satisfaction which he receives from these fairly numerous attendances? The answer is indeed questionable.

Before any progress can be made with the design of a modern railway station, it is essential to have a clear conception of what a railway station is and of what it is intended to be. For the design must be influenced vitally by the conception, and if it is to be a place of public resort, it will expand generously and develop in unlooked-for directions.

Take first the conception of a gateway. At once the problem of scale presents itself. At one end the station is a gateway for trains, at the other end the station is a gateway for passengers. Immediately, therefore, the two must be harmonised, and to a high arched roof, imposing and grand, must be united doorways which appear inviting and homely. The passenger must be made to feel as though he were a guest. The doors are to be set wide open, to be modest, not vast. The doors are to be sufficient in number not to keep the passenger waiting. The steps are to be broad and easy. Over them there must be a canopy to shelter from the rain and other inclemencies of

the weather. The key to the exterior of the railway station is the character and arrangement of the doorways in the face of a building necessarily of great size.

And as in the gateway of Siena, the advertisement is still there. Provision must be made on the face of the building for advertisement in two scales, one to be observed from afar and one to be examined nearby, a further problem to which an acceptable solution is still to be found.

Take secondly the conception of a public resort. It raises forthwith the setting of a station. If it is to be a place of public resort it demands space and dignity. It demands also a sense of order, for without a sense of order, how can the public be brought together with safety and convenience? The spirit of the crowd is not to be unrestrained. The German tradition, which covers middle Europe, has provided numerous stations set in ample space: in a small park as at Zurich, on the borders of a park as at Stuttgart, in the centre or at the side of a square as at Leipzig or Helsingfors. In England there is sometimes a busy yard full of cabs and omnibuses, but, with rare exceptions, nothing that might be said to correspond to a setting. And at least it is desirable that the station should be seen and its character as a public building realised. It will need less of disfiguring notice or advertisement at least.

And there is a specific utilitarian ground for a liberal setting to a railway station. A railway station creates, as it were, an eddy in the flow of vehicular traffic through the city. The stream throws out an accumulation of cars and cabs and vans, all the while bringing and fetching traffic to and from the railway, for which space for manœuvre and for standing is essential. Railway stations have no right or business to create a centre of traffic congestion and make no contribution towards the street accommodation required for its dispersion and relief. There is little virtue in a cramped site. It means the sacrifice of many amenities. There is less economy, for congestion means waste.

The railway station is the only sound and enduring advertisement which the railway has in a city. There it stands, fixed and permanent, the basis upon which the railway can and should be judged. On this account alone, if for no other, it deserves imaginative consideration. There the prospective and intending passengers get their first impressions of the railway service. Is it not





HELSINKI, FINLAND: MAIN ENTRANCE, RAILWAY STATION



MAIN ENTRANCE, STUTTGART STATION



important that those first impressions should be favourable: Then reflect for a moment upon the mixed impressions a visit to the London terminals must produce.

The passenger is often an anxious, harassed creature. He feels the bustle and haste of the rail-

that binds together all the various components that constitute a well equipped station into the expression of a single idea.

All the thought that goes into perishable advertisements is as naught to the thought that should go into this permanent one.



TICKET OFFICE IN GRAND CENTRAL TERMINAL, NEW YORK

way as a pursuing phantom. What, therefore, would he appreciate most? Surely, a sense of care and of orderliness. These, therefore, should find expression in the design and the architecture of the station. The sense of care must flow from the well thought out sequence in which the various stages of arrival and departure—the booking and collection of tickets, the check of luggage, the securing of seats or cabs, and so forth—are planned. The sense of orderliness must flow from some unity

Enter then the station. It is first of all a place of business for which proper provision must be made. There is the booking office with its series of windows, whither comes the passenger, often bearing his luggage with him. The management begins by contemplating a queue, an adverse suggestion to jar the mind of the passenger, and provides a barrier before each window, often too high to serve as a rest for the luggage and often too closely spaced to allow the luggage to pass





LOW-LEVEL CIRCULATING AREA, GRAND CENTRAL STATION, NEW YORK



MAIN CONCOURSE, GRAND CENTRAL STATION, NEW YORK



between it and the window. The passenger is made to feel that his bag is an obstructive encumbrance. In an American railway station it is customary to place a rest below the window so that the passenger may set down his luggage and have his hands free for the task of acquiring and paying for his ticket. It may easily happen that the booking office deals with only part of the requirements of the passenger; that the season ticket, or the reserved seat, or the dog, or the other impedimenta to be dealt with require his attendance at quite another office in quite another place. All this is but an illustration of the need for thought.

The traveller is often beset with troubles. He may want the enquiry office, or the post office (and there is not always one), or the telegraph office, or the public telephones. All these represent a common kind of need. Are they all placed in contiguity to each other for the convenience of the user or are they scattered up and down the platform?

Then there is the stationmaster, who represents the management, and whose office should be conspicuously available as a re-assurance to the passenger. The lost property office, the first-aid station and the police station—three related station services for the help and consolation of the passenger. Again, are all these associated together in one place so as to be easily found?

Finally, there is the cloak room for left luggage, at which the passenger may unload his burden temporarily if he wishes, and it should have a low counter to avoid lifting, the counter level being on a level with the platform of the luggage trolley maybe. In German railway stations the floor inside the luggage office is often lower than the floor outside, so that the counter serves a twofold use, of counter proper on the one side and of a handy rest for luggage on the other side. This is a minor instance of thought in planning.

These are the business or commercial elements of the railway station, and it seems fitting that they should be grouped in orderly fashion around a central hall, well lit and warm and sufficiently spacious to hold the normal traffic of the station. A concourse is the technical expression which the Americans have provided for this central hall in which the work of the station takes place. Those offices which concern the trains, as well as the passengers, could be placed on that side of the central hall which divides the concourse from the platforms with direct access to each from the

offices, as for example, the stationmaster's office, the first-aid and police stations, and especially the left luggage office.

The point for insistence is their orderly grouping round some recognised central place in which the whole business of the station can be transacted.

In contrast to this there is the long strung out file of offices down one platform which is common English practice, and which even occurs when the station is a terminal station, so that in this case only one platform is reasonably and properly served. No recognised order is followed in arranging this long strung out file of offices. Check over the arrangement of any English station and it will be found always to differ, while quaint juxtapositions will appear. It is almost as though, the few principal requirements being met, all the miscellaneous lesser requirements were tucked away into any space that was left vacant as best their needs seemed to fit such space, but without regard to the manner in which their location fitted the needs of passengers.

The Great Hall at Euston was a distinguished exemplar and before the station sprawled out on either side must have been a convenient and impressive place. But now all sense of design, as the expression of orderly arrangement, has fled from Euston.

So at Waterloo there is another distinguished station, but the arrangement has been to place across the ends of the platforms what in other stations extends down the side of the principal departure platform, and once again no consistent or satisfactory grouping is followed.

At this point it is necessary to digress into a brief consideration of the nature of the railway services, for without some understanding of this subject, further progress cannot safely be made.

So far as the passenger is concerned, it is essential to know whether he is to scramble for a seat or whether a seat is appointed for him in the train. If he is to scramble for a seat, the passenger, having discharged the necessary business of taking his ticket, crowds round the entrance to the platform, anxious to be amongst the first to reach the train, or getting through the barrier, if there is one, lines up along the edge of the platform, hoping that he is not against a luggage van, or if he is third class, is not where a first class carriage stops, or vice versa. Everything is uncertain, so that his anxiety as to his comfort can be in no way alleviated. The



weary or laden may sit on the wooden benches that are occasionally provided, but there are numerous platforms without as much as a seat. This habit reduces appreciably the waiting room accommodation that it is necessary to provide, and renders

essential matter is for the passenger to keep his eye on his luggage. The railway takes no responsibility for it. No one can trust a railway company without obtaining a written receipt. The luggage may be lost, or placed in the wrong van or wrong



ENTRANCE TO PLATFORM, GRAND CENTRAL STATION, NEW YORK

such accommodation as is provided of little use. The platform becomes the waiting room.

In other ways the method of station operation affects this problem of waiting. How long are trains in the platforms before departure? How punctual are the trains? What indications are given as to train movements to the waiting passengers? All these are pertinent questions which must have a bearing on design.

Then there is the luggage to be handled. The

train, or not placed in the van or train at all. Experience has impressed upon the passenger the variety and extent of the risks that beset railway travel with luggage. They may appear unreal or exaggerated to the railway management and statistically may be negligible, but no one can watch the crowd at a busy station without being aware of the atmosphere of worry and care that seems to be engendered there. So the cautious passenger has learned not to allow the luggage out



of his sight, and a porter with a barrow or with a swag of luggage about him (to use an appropriate architectural term) accompanies the passenger to the train, for a consideration. He is the guide, the mentor and the friend of the traveller and without his genial, if mercenary aid the English railway system must have been overwhelmed in revolution long ago.

So far, no one has exploited a conveyor system for the handling of luggage. There have been tentative experiments in several countries. There are stations both on the Continent and in America at which separate narrow platforms are set apart for the movement of luggage, so that a train stands between the passenger and the luggage platforms, and the obstruction and confusion of mixing the two is obviated. They demand, however, for success, a greater faith than is given to the ordinary English passenger. They are therefore interesting and remote experiments.

From this digression a return may be made to the review of the various elements that go to the building of a railway station, and the point has now been reached at which the passenger has nothing to do. He has just to wait. So far as English railway stations are concerned, there can be no complaint about the liberal provision that is made for waiting. The passenger has a choice of resorts, for there may be a general waiting room as well as a waiting room for men and another for women, so carefully are the sexes segregated on the least provocation. There will also be waiting rooms for first and third class passengers. But while the accommodation is plentiful, the standard of light and air supplied in all these waiting rooms is not high. They seem habitually to be gloomy and depressing. Their furnishing is formal and dull. They wear an institutional appearance. Those for the first class are not without comfort or even luxury, if the outsize character of the furniture betokens luxury as seems to be imagined, for it is a curious thing that the railway companies provide for the first class passengers on the assumption that they are all of outstanding size, when perhaps all that is meant by this is that they are, in their own estimation, of outstanding importance. Those for the third class, on the other hand, are usually mean and poor, as though the railway companies still resented the action of Parliament in forcing upon their attention the so-called Parliamentary fare. There is still a great chance for the architect

to make the waiting accommodation plain but decent, comfortable but economical.

Waiting is a special feature of a railway station. It might almost be said to be the chief feature, and around waiting spring up many wants. A refreshment room, a tea room, a lunch room, for instance, for the various meals must be distinguished. The refreshment rooms collectively should be closely related to the waiting rooms. Where one leads into the other the temptation is conducive to trade. Who can wait patiently with the clinking of glass sounding next door, or resist the aroma of coffee as it waits through the opening and closing door. All these rooms should therefore be *en suite*. From the main concourse there should be direct access to a series of pleasant rooms in which waiting may be cheerfully accomplished and bodily needs may be agreeably satisfied.

Here would be the lavatories.

Under this proposal it is questionable whether the segregation of sexes or classes remains of much importance. Certainly abroad it seems to be forgotten. They tend to mix happily together, and the common waiting room oftentimes is gay with advertisements of the railway company, not posters necessarily, but decorations of a more permanent and artistic quality. There is a certain amount of interest and amusement to be obtained by the observation of one's fellow travellers. A common waiting room provides an excuse for greater spaciousness. Whatever is provided, waiting room and refreshment room should be recognised as public rooms, and in their arrangement and equipment should correspond closely to the public rooms of an hotel.

Cursorily reviewing the English main line railway stations, it would not seem as though this principle of design had been consistently applied.

A further word on refreshment rooms. They need to be of two types. The leisurely sort in which a meal can be obtained with time, and the quick sort in which a meal is snatched in the interval between trains. The Americans have developed to a fine pitch the quick service bar, not only in the matter of speed of service, but also in the matter of variety of food. The bar of the English railway refreshment room has become the stock subject of jest. Its unimaginative and limited resources in the way of food have almost passed into a proverb. There is great scope once more for design in connection with refreshment rooms.



In conjunction with the waiting rooms should also be found the news stall and the tobacco stall, and, to meet newly developed tastes, the fruit and sweet stalls. Because in England waiting is mostly done on the platforms, all these stalls tend to get on to the platforms, which is to be recognised as the proper principle of business, that is to say, that they should certainly be associated with the place in which waiting is done.

If a waiting room is to be used it must be equipped with an indicator which will advise those who wait in it of the movement of trains in the

So they have brought together in their larger stations all these jobbing trades that the passenger wants from time to time but puts off, seeking to save himself trouble. It should not be forgotten that numbers of passengers are regular passengers. Then they know that all these things are to be found in the station. Umbrellas to be re-covered while you wait; clothes to be repaired and pressed; hats to be blocked and ironed; boots to be polished, heeled or rubbered; hair to be cut; and there are quite a lot of tiresome little items which have been put off until that idle minute, and



QUICK SERVICE BAR, BUFFALO STATION, NEW YORK

station. They must know of train arrivals and train departures in good time. Often enough the waiting room is without means of communication with the station, so that passengers anxiously watch the clock, or run in and out with unrequited expectation. A proper system of indication would add much to the amenities of the waiting room.

All that is said under this head may be summed up in a phrase, that there should be system even in waiting.

Our American cousins go much further. They have thought out this problem of waiting in a true commercial spirit. They know that Satan finds some mischief still for idle hands to do; that the idle can be so easily induced to act; that idleness is a kind of vacuum which must be filled up.

then the station meets the need. Lots of little shops paying nice little rents, yet all contributing to the satisfaction of the passenger. Or, going further, there are the chemist, the stationer, the occasional printer and the haberdasher, who supply the odd forgotten wants, or who meet the trivial commissions which occasionally accompany the passenger who travels daily to business and who is glad to secure for them a prompt and happy dispatch.

If, therefore, space permits, it might be desirable that some sort of arcade should be set aside within the station limits in which opportunity can be made for all these and kindred shops. By such means waiting may cease to seem a waste of time.

Our American cousins, on occasion, have gone



even further still, and in the Grand Central Terminal of New York, which is perhaps the finest station in the world, there is a railway museum and there is a picture gallery. The picture gallery admittedly combines the provision of entertainment with commerce, for the pictures are for sale. If a station is to be made a place of public resort, it is worth while to consider whether there is not some advantage in bringing on to the site other attractions, and it may easily happen that these other attractions will yield a reasonable return to the railway company for their accommodation.

Once start the public congregating together and every fresh excuse will add to the congregation. That is the habit mass psychology establishes. A railway station may legitimately exploit it. The Piccadilly Circus station is a minor instance.

At last the platform is reached, or rather the series of platforms which occupies the train shed. The dimensions are now mainly determined by engineering considerations. The human element shrinks into insignificance and if any single element exercises control it must be the car, approximately 60 feet long by 9 feet wide by 12 feet high, with its floor level some three feet above the rail. The architect has little choice except with regard to the height and shape of the roof, and the character of the station must turn upon the roof. St. Pancras station has the most graceful roof in London, a fine sweep, a broad span. The problems of this part of the station turn upon lighting and ventilation, and to ensure an even illumination and to allow the smoke and steam of the locomotives to clear, the roof should be placed at a liberal height above the platforms. If this is the case, then direct lighting may be used, for the suspended lamps will yet be sufficiently high to be out of the way and thus avoid glare. Direct lighting is half the cost of indirect lighting which would be necessary if the roof were low, for it is assumed that a modern station would aim at a general suffused lighting from a concealed source rather than at the hit and miss of spot lighting. Where a station is built with a low roof, special provision must be made for ventilating ducts and cowls to take away the smoke. These are disfiguring and destroy any feeling of spaciousness and beauty that there may be. A bad example is to be seen in Stuttgart station.

One problem of the train shed that has never been satisfactorily studied is the use of the walls

for advertising. Large-scale advertisements are based on a unit 10 feet high by 6 feet 8 inches wide. Properly panelled into the sides of the train shed, advertisement spaces should yield a decorative effect of patches of variegated colour within the uniform framework of steel. The orderly repetition of such spaces, as of the steel trusses themselves, becomes a patterning which is not without aesthetic value. Certainly it is folly to build a railway station on the assumption that advertisements will not come, and to provide arches and architraves to disappear behind clumsy hoardings. The revenue which advertisements yield is too great to be neglected, and now that there is so much agitation with regard to the preservation of rural amenities, spaces for advertising may become restricted, and the authorised or tolerated spaces, such as those in railway stations, may become of greater value. The architect must therefore make terms with the devil of advertising and will find him, as in the fable, a gentleman.

Provision must also be made for the railway's own notices and advertisements. Here another and smaller sized unit is employed, the double royal poster, 40 inches deep by 25 inches wide. To be seen effectively it must be placed along the eye line on wall and pier.

All illuminated or exceptional advertisements should be excluded. Any special illumination should be applied to the signs and notices necessary for the direction and information of the passengers. The observance of this rule will make all signs and notices required for use distinctive and clear instead of being blurred by being buried in a disorganised welter of incongruous advertisements.

But slender care has been given to the station name plates. These are generally placed on seat backs and are only visible when the seats are not in use, thereby contradicting almost the purpose of the seats. Or they are placed on lamps in such small lettering as to be visible only with difficulty. Over and over again it is possible to stand and look up and down a platform and find no indication of locality at all. Distinctive name plates, clear of all extraneous matter, should be supplied, one for every car's length of the platform.

As for signs, there is an unwholesome fondness for capital letters. There is a lesson to be learned from the Germans here, for they use the lower case or reading type, and it is astonishing how much more legible the wording becomes because the eye



is accustomed to reading the letter symbols and grasps their significance more readily.

These are all details but important for the general effect. If they receive the care and treatment which they deserve, it will be found that there is no room in the train shed for decoration in the usual acceptation of the term. All that is requisite must and can be obtained by the symmetrical and orderly disposal of those numerous matters which seek a place there in these days. A signal bridge well designed can always give a touch of freakish splendour. Rows of hanging lamps make an orderly pattern. The signs and notices, in which a colour scheme can be logically introduced, add a note of brightness. The architect must accept as a truth past disputation that the railway itself and its equipment, including even the advertisements, are themselves decorative. There is no place for conventional architectural dress at all. It simply makes nonsense of the structure of most stations.

And then a question arises of much importance to design and architecture. Shall the station be a terminal station or a through station? English practice tends always to a through station wherever that is possible. German practice tends always to a terminal station wherever that is possible. In Germany the train sweeps round into the city at one point, and then reversing or changing engines, sweeps out again. This has a great advantage in relation to town planning. The city is less cut up by railways, especially where the station is kept some distance from the centre, and there should be no objection to this in practice. It is indeed advantageous that the station should not be placed in the congested centre of the city. The sacred inner circle of London from which a prudent legislature excluded main line railway stations has yielded immense advantage to the central plan. What with low over bridges and weak under bridges there are whole districts in London cut off from the general flow of vehicular traffic. There are whole districts which cannot be planned in any commodious or symmetrical fashion. The answer to the question turns on whether railway convenience, which would surely desire the through station, or town planning, which would just as surely desire the terminal station, is to be the uppermost consideration. The architect, one would imagine, would prefer the terminal station; the railwayman, the through station. They are in conflict.

Immediately another question arises. Is the station to be built on one level, or on two or more levels? Where the station is built upon one level, the first question as to whether it should be terminal or through takes on an added importance. With a through station there can be no convenient passenger service for the several platforms. Usually one platform enjoys all the amenities of the station and the other platforms get none. With a terminal station it is possible to place the concourse and its annexes at the base of the several platforms so as to serve them all equally. But in London terminals this is not usual, though why it is not so, it is hard to say. Where the station is on one level it stretches out over an enormous space. Leipzig claims to have the largest station in Europe. It is a foolish boast betokening much weariness to its passengers. Its cause was the separatist tendencies of the several State Railways running into it, each wanted its own exclusive part. York station has grown longer and longer until it is no inconsiderable walk from the end of a platform to the way out into the street. Manchester is proud of having the longest platform in the world, extending to over 750 yards, yet it is doubtful whether the fares charged are adjusted to allow for the exertion of the passenger in place of carriage by the railway. Presumably the passenger will be charged as though he were always put down at the centre point of the through platform or at the buffer stops of the terminal platform!

It is submitted that a station should always be on two levels. At Cologne the concourse and passenger accommodation is at street level while the trains and platforms are up above. In New York, both for the Pennsylvania and Grand Central stations, the passenger accommodation is again at street level with the trains and platforms below. This is the best arrangement. But whichever way it runs it saves space; it adds to convenience; it brings the passenger accommodation into close relationship with the train accommodation; it solves in large part the problem of scale.

At the Grand Central station, New York, there are three levels in use for passengers, but the mezzanine between the platform and the concourse is shallow so that passage from one level to the other is easy. It is afforded by means of ramps of a grade of about one in twenty, as experiment showed that these were safer and speedier than stairs. This mezzanine doubles the accommodation at the



station. It was requisite in connection with the station design in this case because road access was provided to the station on two levels. Not only is there access to the station at the ordinary street level, running east and west, but there is access upon a higher level from a viaduct which carries the north and south main avenue across the east and west street and continues round the station, an arrangement which facilitates the sorting out of arriving and departing traffic. This station has

station is. A bit unbalanced maybe, but perhaps helpful and illustrative where the detail is given. The station falls into its logical parts; the concourse, the waiting space with its auxiliary facilities, the train shed. Their purpose and function are to be ascertained and set forth in the plan. As a building it must express its functions in its form and structure, even its least meritorious, such as the compulsory supply of drinking water. Like the human body, it may retain vestiges of past func-



CIRCULATING AREA GIVING ACCESS TO PLATFORMS, PENNSYLVANIA STATION, NEW YORK

also links with commercial buildings and hotels on all sides by means of enclosed arcades, so that it is always a busy hive of people. In the galleries round the concourse, built over the offices at a fourth level, are the museum and picture gallery to which reference has already been made.

While a railway station should be spacious in its parts, it should be knit compactly together. It should not be more spacious as a whole than is necessary for the convenient discharge of its business. There is a tendency to regard spaciousness in itself as a valuable feature of a railway station.

There, then, is some notion of what a railway

station, survivals of an older existence. There is, indeed, a multiplicity of services to be covered. Each can only be successfully accomplished if it follows an orderly sequence. Some tentative suggestions have been submitted towards a solution of that orderly sequence. The time has now come for the architect to take a hand.

The notion of a station commences in the traffic department. Its general size to meet the traffic requirements is there determined; its general lay-out for convenience of operation. Then come all the other departments to add their contributions. The Hotels Department for the re-



freshment rooms, the Estates Department for the shops and stalls, the Commercial Department for the offices, the Publicity Department for the signs and posters, and so on. All these separate little authorities are quarrelling and struggling in friendly fashion for their place and for their advantage in the scheme. Finally, there comes the engineer, an autocratic person, who presumes upon his position as the builder of the station to dictate his views.

station in New York, which has copied the Baths of Caracalla or the Basilica of Constantine for its main hall, and which has adopted a colonnaded front on the lines of a Greek temple for its exterior and compares itself with the Brandenburger Tor of comic notoriety. In connection with this station it is amusing to contrast the Great Hall with the concourse. By the time the Great Hall was finished the architect had exhausted himself and the con-



GRAND CONCOURSE, PENNSYLVANIA RAILWAY STATION, NEW YORK

He defines with exactitude, being a person of gauges, clearances, overlaps, and so on. He fixes the final dimensions in general and in detail. If there is a railway architect he is most likely a branch of the engineers' department. His voice in design is but a feeble one. The stamp of the engineer is written broadly over the English railways. His style of architecture is his own, but it is better than that of the architect, who still thinks of railway stations in terms of palaces or temples. For instance, there is the Pennsylvania railway

course is a plain steel and glass building, much more useful and practical than its grandiose neighbour.

But one may put in a plea for the genuine architect seeking to express through form and structure the purpose of a building. He needs encouragement. The truth is that by the time he comes on the scene so much is settled that he is in a fix. He hardly knows what he can do. Within certain limits he can make adjustments. Within certain limits he can vary the planning. But what he chiefly contributes is a justness of proportion,



a simplicity of outline, a severity of treatment. He provides the shell, full of beauty flowing from the scale and balance of the parts and their inter-relationship. His virtues are indeed those which Nature unconsciously reveals in her shells, the inevitable translation of stress and strain into rhythmic shape. But he has to set before himself an austere ideal. It is the only one possible. He

controlled key. Only by the most careful thought of the rationale of a railway station will the architect be able to dispose within his shell all the necessary parts fittingly and properly.

There is an end. I may claim to be a railway man. I have taken the subject as far as I can. Now the architects can take it up, and take it further. I am speaking to the architects. It is



ENQUIRY BOOTH ON LOW-LEVEL CIRCULATING AREA OF GRAND CENTRAL TERMINAL

may not allow himself any radical departure from the strict utility of the expression. But within the bounds of strict utility he must achieve a striking exterior, a landmark in the city. He must also achieve an impressive yet inviting interior, something which can be taken unquestionably as fine. A mere escape into vastness is not a solution. He should be happy in his limitations, as these will prove his salvation. There is only one correct solution while there are innumerable wrong ones. It is not a case of every architect his own station if the right method of approach is followed. The personal equation may be present but in a subdued and

your turn. This is an apposite moment. There is a new terminal to be built on the south bank of the river in place of Charing Cross. But what a bother there is? How wrong to let the station occupy the river frontage? But a station is a public building and deserves a public setting. How wrong to bury a street in tunnel? But a station should be on two levels for compactness and requires long frontages within its ambit. The length of the street tunnel is reduced in consequence. The way of controversy is hard and fruitless. Let me commend the way of co-operative thought.



## Discussion on Mr. Pick's Paper

THE PRESIDENT, SIR BANISTER FLETCHER, F.S.A., IN THE CHAIR.

The Rt. Hon. LORD ABERCONWAY, P.C. (Chairman, Metropolitan Railway Company), in proposing a vote of thanks to Mr. Pick for his Paper said: There was one gap in Mr. Pick's lecture and in his photographs—he said nothing about Piccadilly Circus station. Piccadilly Circus station is one of the most remarkable developments of the Underground Railway System in this country, and I should think it could not be paralleled anywhere else. It has produced a large increase of remunerative traffic, it is a delight to the British public, and it has shown us what can be done in apparently impossible conditions, in producing a solution of many of the questions which Mr. Pick has ventilated to-night. When you consider the squalid horrors of the Underground Railway 25 years ago—I speak of the Metropolitan and the District—these companies can look at what has been achieved in recent years and say that with our limited resources we have done very good work. We here in England have not command of the colossal capital available in the United States to readjust our railway stations. My friend Sir Herbert Walker deserves immense credit for what he has done at Waterloo. There are few stations which in my opinion as a traveller, are more convenient or better adapted for that great suburban and long-distance traffic which Waterloo provides.

The façades of our railway stations, I admit, are not worthy of London, and that you gentlemen will thoroughly understand. Unless a Socialist Government comes in and asks Mr. Pick to draft a Bill to carry out all the suggestions he has made, at the public expense, there is not much prospect of great alterations in these railway terminal stations. But as long as men like Mr. Pick, with their knowledge of the Continent and America, are alive to these difficulties, we have every reason to think that, as time goes on, our railway conveniences will be improved.

I can imagine a great many more points about the convenience of stations than Mr. Pick has mentioned but that is not my business here to-night. I wonder whether the time will come when we shall fully recognise what Mr. Pick and his company have done. You know the inscription on the monument of Sir Christopher Wren in St. Paul's: "Si monumentum requiris, circumspice!" In a hundred years people may say, "If you require a monument at Piccadilly to Frank Pick, look below ground." Nothing that Mr. Pick has done has delighted and helped the public more than his work at Piccadilly Circus station.

Sir HERBERT A. WALKER, K.C.B. (General Manager, Southern Railway Company), in seconding

the vote of thanks, said: The Paper which we have just heard goes a long way to help to solve many of the problems which railway companies have had to face in this country, and, generally speaking, I agree absolutely with what Mr. Pick has stated as to the requirements of a large main line terminus station. But, naturally, I do not subscribe to what he has said in criticism of Waterloo Station. That station was schemed and designed by a body of experts who went all over the Continent and to America and picked out from the places they visited the best features of the railway stations. The idea underlying the laying out of Waterloo was to have everything on the level. In the first place your taxi puts you down alongside the booking office. Having taken your ticket you pass from the booking office to the concourse, which gives access to the various platforms and waiting rooms, without having to go up or down steps for the purpose.

I have enjoyed seeing the pictures of the various railway stations which Mr. Pick has projected on the screen; I have seen most of the stations described, and I subscribe to what he says. But the lesser of the two stations in America which he showed us cost £10,000,000, and if I were to take such a proposition before my board of directors, they would all agree that the course to take would be to have two doctors and get me certified for admission to a lunatic asylum. They can afford those things in America, but we can't afford to spend all that money on our stations in London. Not that property is more valuable than the property in New York; but in New York the foundation is solid rock, and they have not the difficulties we have to encounter in going underground.

There is one point which affects the architects. There have been a good many statements, and much criticism, in the papers about the new Charing Cross Bridge, and the fact that the new Charing Cross station is to be put in the forefront of the space between the present Waterloo Bridge and the proposed Charing Cross Bridge, generally on the score that the railway station cannot be made an attractive proposition, ("No, no.") You say "No," but that has been the gist of much of the criticism which has appeared in the papers. I cannot agree with those critics. I think it is within the capacity of our engineers and our architects to design a station which will be a credit to our City of London, and I see no reason why that station should not be on the river front, leaving room for the Embankment and approach roads. Why that station should not be so designed as to be quite as pleasant looking as any other building passes my comprehension. All I can say is that it is the intention of the



Southern Railway that the station shall be so designed as to be a credit to everybody. It will be so if it is ever built and the architects will have no cause for complaint.

Sir HAROLD HARTLEY, C.B.E., F.R.S. (Vice-President, London Midland and Scottish Railway Company), also thanked Mr. Pick for his Paper.

Mr. R. WYNN OWEN [J.]: One point I want to call attention to is that, invariably, successful examples of railway architecture, both in America and on the Continent of Europe, have been the result of the untrammelled efforts of architects; and the building at St. James's Park railway station is a very good modern example. In the early development of railways in this country, I should imagine from my own observations, that the railway companies did, in those days, fully appreciate the necessity of a really sound architectural expression of their building schemes, with the result that, to refer to an example, which is familiar to us all, the original London and Birmingham Railway, through the medium of an architect—Mr. Philip Hardwicke—contributed to the Metropolis one at least of its finest architectural monuments. I refer to the magnificent entrance gateway to Euston station—a very fine example of the Doric order applied to a great gateway. That monument was originally the central figure of a symmetrically designed front, which comprised various subsidiary blocks of masonry, with very fine gates disposed between them; and the whole was obviously designed as the termination of a spacious approach to that railway station. I have in fact seen an illustration which confirms this. Unfortunately, the dignity of that fine monument has been greatly impaired by the chaotic collection of uninteresting buildings which has subsequently been allowed to disfigure its environment, while the building of an hotel athwart the main entrance approach road has completely obliterated any view of that grand architectural gateway from the approach road. There is little doubt that Hardwicke realised the importance of a dignified link between the city and the railway, and the great scale of his entrance gateway reflects the magnitude of his conception, but its present condition is a conspicuous example of how railway architecture has been detracted from. Subsequent generations lose sight of and often disfigure or even obliterate the original architectural conceptions of men like Hardwicke. This arises from the neglect of, or the inability to appreciate, the function of architecture on the part of those who are responsible for the conduct of the railway companies officially, with the result that in railway organisation there is a confusion of architecture with engineering, and our railway administrators appear to fail to discern where the one ends and the other begins.

I have used this well-known example to show that it

is difficult under existing conditions, without official recognition for architects in railway service, to maintain the standard of railway architecture. I had that task entrusted to me some years ago when I had to deal with the architectural remodelling of Euston station; and what you see there at the present time shows what was done in an attempt to develop out of chaos some sort of order. The limitations of the site only allowed a narrow booking hall or concourse which led you into the great hall to which Mr. Pick has referred, and around the great hall I grouped the various rooms for the people waiting, such as dining-rooms, tea-rooms, refreshment-rooms, smoking-rooms, telephones and inquiry offices, etc. I can conceive of few more interesting architectural problems than that of designing a new terminal railway station on a clear and open site. But to those who are not conversant with the details of the requirements I would say they will find that there are many pitfalls and intricacies, which demand the closest investigation before the architect can embark upon the problem with anything approaching a justifiable hope of success.

Mr. R. V. LANCHESTER [P.]: I would take the opportunity of adding my appreciation to that of numerous others on the successful achievement at Piccadilly Circus station. I admire it so much, in fact, that I should like to see the station extended as far as Cambridge Circus and Leicester Square. If that were done, it would afford direct entrances to about 18 theatres in that locality, and it would make greatly for the convenience of getting about in that part of London. I have often come from the theatre on a rainy night and found it impossible to do anything towards getting home until a gentleman comes along and says, "Half a crown if I find you a taxi, Sir?" That is the market rate before you get your taxi. I conceive that nobody could do more for that part of London than extend Piccadilly station over an area of a few dozen acres.

I also should like to raise the question of whether a terminal or a through station is the better for a city. My inclination is towards the through station; but Mr. Pick's experience is greater than mine, and if he raises his voice in favour of the terminal station, I suppose he is right. But it seems to me an extravagance to occupy a large area of valuable land in a city as a shunting ground for moving trains backwards and forwards, and it is more distracting to live near a terminus than to live near a through station. I have tried both. I see the difficulty of getting a good town plan with through stations, but the point might be overcome by skilful planning.

Mr. GILBERT H. JENKINS [P.]: There was published in the front of the Institute JOURNAL a synopsis of the paper to-night, and I rather wondered from that, whether we were going to hear from Mr.



Pick that the architect was a person who was called in at the last moment to decorate and "ornament" the engineers' completed design. But I was extremely interested to find that Mr. Pick, right through his paper, seemed to suggest that in the design of a railway station all those attributes which peculiarly belong to the architect are necessary in order to get a successful result. One noticed in that announcement that the last paragraph was in regard to the architect. First, the traffic department was mentioned, then the engineer, and only at the end the scope and function of the architect. But surely it is because, in England, the architect has merely been subsidiary to the engineering department in all our railways that we get such poor results in this country, in comparison with those on the Continent. One has only to remember the Underground Railway itself as it is now, and then as it was a quarter of a century ago, to realise the difference that the architecting of different stations has made. Before, we had very ugly, insignificant entrances to all the stations, until it seems to have been suggested to someone that if the architect took a hand and the stations were pushed back from the street and attractive buildings were put up, it would have a great effect both on the traffic of the Underground and on the appearance of their stations. In the same way we know that the traffic on the Underground system is increasing between the suburbs and the centre of London, which is spreading out in all directions. Lord Ashfield referred to it in his recent chairman's address to the shareholders of the company, and remarked upon the enormous development there was in the dormitory and satellite towns around London.

Obviously it is to the benefit of the railways that, from the beginning, when it is a question of the creating of a new station, an architect who is also a town-planner should be consulted as to whether the site suggested by the engineer is the best place for a station to be placed, as the whole development may be affected, prejudicially or otherwise, by its position. Surely the engineer and the architect and town-planner could work in concert from the beginning and go on in concert. It should not be the idea that the architect should be called in at the last moment in the endeavour to put right mistakes which have occurred owing to the problem not having been treated as a whole.

That is one of the criticisms which have been made about Charing Cross Bridge: the problem has not been viewed as a whole, but merely as an engineering and as a traffic problem. It is to be hoped that, in the consideration of the matter in Parliament, a wider view will be taken, and that it will be realised that the position and planning of Charing Cross Bridge and the new station will beneficially or prejudicially affect the whole of South London for all time.

Mr. C. W. CLARK [A.]: First of all, I would like to

congratulate Mr. Pick upon his Paper, and secondly, I should like also to congratulate the Institute that the railways are taking an interest in architecture. It has been the habit, I think, in the past, and to a great extent it still is the habit from what we have heard this evening, rather adversely to criticise railway efforts in architecture. There is one point which appealed to me particularly in the Paper; and that is with reference to the design of a certain New York station. Mr. Pick referred to the pride the American citizen takes in that station; I think such pride has a certain amount of value to the railway.

Then there is the question of advertisements. I was very pleased to hear that Mr. Pick was an advocate of orderly arrangement. It always seems to me, with regard to railway properties, that somebody comes along at the last moment and spoils any merit in the architecture for the sake of some paltry advertisement. An orderly arrangement of the advertising not only adds to its value, but also to the dignity of the railway.

Good architecture has a value to railway companies. I think much of the trepidation with which the public view any railway project would be removed if they only knew that the advent of a new railway station in their midst will mean an enhancement of the local architecture. There is no doubt that in the past they have had some nervousness on that point.

Mr. Pick has shown us to-night a large number of American and German railway stations, and it is evident that they have not been blatantly advertising and only appeal from their fine architectural quality. I do not think the façades were spoilt in any way, not even by the name of the railway to whom they belonged; there is no suggestion there about going to Brighton, or the quickest way across the Channel, in enamel iron.

Regarding American practice, to which Mr. Pick has referred a good deal to-night, we have two examples in this country of American principles of architecture. One is a well-known West-End store, whose architecture during the last 20 years has impressed itself upon the public mind, because of its quality, and its name is not advertised on the front. But there is another invasion of American style of architecture, which is represented by multiple and very cheap stores. I am residing close to a charming Surrey town, and in that town there is a great deal of agitation at present amongst the inhabitants because of the possible invasion of one of these cheap multiple stores, with all its vulgar architecture. This is one of the worst examples of following America, and if we are to follow the example of America, as suggested by Mr. Pick, I hope we shall be spared the blatant advertising style.

Mr. H. G. IBBERSON [F.]: The Paper we have listened to to-night called to my mind one given in this Institute many years ago. It was by a German, I think. He was discussing our English stations, and, in a complimen-



tary way he talked about the size and dignity of the buildings, and flattered us by saying that they possessed practical conveniences sometimes lacking in his own country. But he went on to say that when we left our station we left it, in a sense, for nowhere; there might be any kind of street; nothing was thought out and nothing was arranged. He went on to say that in his country when a stranger left a station the first thing they wished to do was to "impose upon him," an unusual use of the word "impose" which amused the audience.

If Mr. Pick's Paper could be in some way gently obtruded upon the committee which is dealing with the new Charing Cross station, it might induce them to agree to a "lay-out" which would "impose" upon us in the same pleasant and delightful way as the Paper itself has done.

Mr. J. S. WILSON, F.C.G.I., M.Inst.C.E., also congratulated Mr. Pick on his Paper.

The PRESIDENT: I think we have had a very instructive Paper from Mr. Pick, and the remarks which have been made subsequently have added considerably to its value.

I do not propose to enter myself into the discussion, except to correct a very false impression which my friend Sir Herbert Walker seems to entertain. While he was speaking he said that everybody seemed to think that because a railway station was on the banks of the Thames it therefore could not be a fine expression of architectural design. That is an entirely wrong conception of the criticism which has been raised with regard to the proposed new station on the other side of the river. We hold that the station, if put in the front of the river bank, would prevent the proper town-planning of the whole of the south side of the Thames. If Sir Herbert Walker will give any architect of repute a commission to design a railway station he can design it anywhere. But with regard to the new Charing Cross station, is the bank the proper position? We hold that it is not, and we are backed up by the engineers of a previous Commission, which also held that it ought to be put back close to the present Waterloo station. However, that is only a detail.

But if one thing has been brought out in this discussion it is this—that town planning is the element of all these great schemes, and you should not design your bridge or the ways up to it until you have considered the town-planning of the whole district in which the station is to be situated. If that were done you would avoid a great town-planning disaster, which the present scheme for the bridge and its approaches involves. It is not too much to say that if this opportunity is lost the future architectural development of London on both sides of the Thames will be prevented for all time. And that is the reason we are spending all our time and energy to fight against a scheme which, we hold, is fundamentally bad.

The vote of thanks has been most ably moved by Lord Aberconway, and it has been seconded by Sir Herbert Walker. I should now like to put the vote to you, that Mr. Pick be thanked for his most admirable Paper.

The thanks were carried by acclamation.

Mr. PICK (in reply): There are enormous engineering difficulties connected with the building of a station, even a small station. You cannot have your own way. The unfortunate architect must make six or seven plans before one is accepted that is feasible because it meets all the requirements. Take, for example, Piccadilly Circus station, of which several of you have made honourable mention. Our engineer and architect had to prepare 70 or 80 separate sets of plans, and I can only add that he was paid on a commission basis. When the whole work was done he came into the office and said, "I took on this work at a certain commission, but are you aware that I have had to prepare 70 or 80 sets of drawings?" And out of compassion the Board granted him a considerable sum of money to meet the cost of the plans he had submitted. It was only fair that we should do so. It was only by having before us the ideal of what we wanted that we were able eventually to carry it out. By taking every care it was possible to have a fine station even on a bad site. In the case of the Piccadilly Circus station we had to start by negotiating with all the frontagers there about their cellars and foundations, and then with all the people who had pipes and sewers and wires buried in the street. The cost of creating the site was over £20,000, just clearing up all these matters. Even then we could not have achieved our aim unless the Crown had come to our assistance. It is the Crown who is responsible for the station. The Office of Woods and Forests recognised that the station was a public work and transferred to the railway company the necessary rights in the sub-soil of the Circus for the station works for a sum of £10.

I can sympathise with Sir Herbert Walker, and with every railwayman for that matter, in that all these ideals are hard to realise. One speaker mentioned that there were always petitions against a Railway Bill. I may add there are petitions against the Railway Bill which my Company has in Parliament at this present time. One allegation against us is that we are going to provide a series of disfiguring stations in certain suburbs. If you saw the suburbs you would hardly think it possible there could be any building which was disfiguring in comparison. However, we had a meeting with the representatives of the local authorities and it then transpired that they were afraid that we should place some more Epstein sculptures upon the stations. We gave them an assurance that we could not afford the services of Mr. Epstein, and that he would not receive a commission to decorate them. That illustrates the difficulties with which you have to contend and how little you can do as you please.



## The late Charles H. Moore, A.M.

Professor of Art and Director of the Fogg Art Museum of Harvard University (Retired),  
Honorary Associate R.I.B.A.

BY PROFESSOR W. R. LETHABY.

This remarkable man, who had been Professor of Art at Harvard University, lived for the last twenty years or more at Hartley Wintney, in Hampshire. Here he built a house, where he died on 15 February, being within two months of ninety years of age. He came to England, I have supposed, to be near the special object of his study—medieval architecture. For most of this time I had the privilege of knowing him personally. I was especially drawn to him by a common regard for Ruskin; and, if I may say so, by a very similar outlook on art and architecture.

He had met Ruskin, and to some degree—particularly in regard to drawing—may be said to have been his pupil. In Ruskin's "Life" is written of the winter of 1876-77: "During this winter at Venice Ruskin was the centre of a large circle. He especially enjoyed making the acquaintance, through an introduction from Professor Norton, of Professor C. H. Moore, of Harvard University. Mr. Moore was his companion on many an expedition on the lagoons; and in Venice itself they sketched and studied in the Academy together." Ruskin wrote to Norton from Venice on 5 October 1876: "My Dearest Charles. . . I am very much delighted at having Mr. Moore for a companion—we have perfect sympathy in all art matters and are not in dissonance in any others. And he is not at all so wicked nor so republican as you, and minds all I say!"

Once, in 1919, I asked Professor Moore about those days, and wrote a note, which I will quote. "He showed me an interesting little set of drawings made by Ruskin on their walks together in Venice. There were eight pencil sketches, about 6 by 4½ inches, done for his friendly instruction, as they found themselves before suggestive subjects—all rapid, but having the Ruskin character of truth with grace. Professor Moore worked under his guidance for three or four months, sharing walks, and having long talks. Another little set of drawings had been done by himself under Ruskin's instructions, one was the outline form of a mass of buildings as seen from R.'s room at the hotel—we know how the rooms were chosen for what might be seen from them. Here a steep fall with a sharp curve at the bottom had not been sufficiently emphasised, and R. had called attention to its being like a J, drawing the letter below. When it had been got right it was tinted with a flat neutral wash. Ruskin claimed that he drew accurately what he saw and did not compose. His eyes, however, were aware of any happy accidents of curving streets, and awnings, foliage, boats, ropes, and he pointed them out. They also worked together at picture copying. The great Carpaccio was unhung and put

in a private room, where they worked at intervals during their stay. Once, after getting his apparatus ready, R. remarked: 'Preparation for work seems to take up more time than the work itself.' Moore went to Verona for a week as Ruskin's guest, and one lovely drive was specially remembered. When passing through a gateway Ruskin remarked: 'The last time I drove here was with Longfellow.' Mr. Moore spoke of Ruskin's many pensioners in Venice and of his wonderful generosity. They returned together over the Simplon, where his reading of Byron and pointing out the truths of observation was remembered. In all this there was a memory of something large and liberal, a summer afternoon sort of feeling."

Beside his work at Harvard, where he was director of the Museum, he wrote two or three books on architecture which seem to me of outstanding excellence—having something to say, and saying it strongly and clearly. One of these books was on the principles of Gothic architecture, and another on the character of the Renaissance. In the former he brought out more clearly than we had been accustomed to hear the organic structural character of Gothic, and he showed great power of appreciating the meaning of medieval building art. I should like to recommend the re-reading of his books to anyone who may be interested in theories as to the true content of what we call "Architecture."

In his studies of architecture he did not in any way follow Ruskin's methods. He was chiefly interested in tracing the logical development of structure in a manner more akin to the work of Viollet-le-Duc, for which he had much admiration. About this I recall his quoting a remark Ruskin had made to him, that Viollet-le-Duc had shown how the organism of a Gothic cathedral was as wonderful as a living skeleton.

He was especially interested in the evolution of ribbed vaulting, and after he came to live in England still pursued his studies. I remember going with him in 1919, when he must have been 78, to the village church of Odiham, some five miles from his house. Here there is a ribbed vault (c. 1200?) which he examined with the understanding of a connoisseur.

His general conclusions were that medieval architecture was an essentially French art, and this view was expressed with such clearness and conviction that it called us all to that tiring exercise—thinking afresh. For myself I feel I owe him much. He was a man of remarkable force, of high honour, wide culture, and the most considerate courtesy. Almost more than anyone else whom I have known, he carried on the older, quieter spirit of the Victorian Age.



## Reviews

ROYAL COMMISSION ON HISTORICAL MONUMENTS (ENGLAND). *An Inventory of the Historical Monuments in London: Vol. iv, the City.* xxxvi+258 pp. (Illustrated). 4s. Lond. 1929. H.M. Stationery Office. £1 1s.

Among the things that we are thankful for, the volumes of the Royal Commission on Historical Monuments for England must be counted in the first rank. As each of these most excellently produced books appears we are not only led at once on a delightful voyage of discovery, but we feel the added satisfaction that our tour is being conducted by the most sure and trustworthy guides. The thoroughness of the Commission's survey, the judgment shown in its report, and the effective mechanism by which its information is made available are alike subjects for our gratitude and our congratulation.

In a period of unexampled change, when a general alarm is felt at the passing of so much that we shall miss in the town and countryside, these inventories of our ancient buildings hold a singular value and significance. Presented to us without the taint of sentimentality, delineated clearly and directly with a scientific precision, their record of what remains from English life of the past is none the less eloquent, and is indeed more likely to be persuasive than the frequent but often unheeded appeals for preservation. In a business-like way the Commission is carrying out its appointed task, and the "culture, civilisation and conditions of life of the people in England, from the earliest times to the year 1714" are receiving the illustration which has been needed for so long, but which is only now becoming available by a systematic examination of all the surviving evidence.

Succinct and reserved as are the actual descriptions of the buildings, the books as a whole are by no means lacking in human interest, and the ample supply of most excellent photographs converts them into valuable collections of examples of English architecture and craftsmanship. It is certain that never before has the ancient city of London had such vivid and complete presentation as in this fourth London Volume. And despite its losses, in the overwhelming catastrophe of 1666, and in its apparently complete obliteration by modern rebuilding, it is surprising to see how numerous and how varied are the survivals. Among the photographs and plans, which number well over 500, will be found matters of interest touching practically the whole range of our national applied art.

It is natural that this book on the City should be concerned very largely with Renaissance architecture—the work of the period of rebuilding after the Great Fire. "We desire to record our emphatic opinion," say the Commissioners, "that all the surviving buildings, both secular and ecclesiastical, designed by Sir

Christopher Wren are of signal importance to the architectural history of the City and Country." And this certificate of fame is emphasised by the remarks in the Sectional Preface, where the contents of the City are ably summarised:—"Wren's Renaissance Churches form a remarkable group, exemplifying alike a mastery of construction and design and a felicity and fecundity of ideas which it may well be claimed have never been equalled by any other architect." Here we may see these churches planned and described and their furniture and fittings faithfully set forth. As a monument to Wren the book alone is noteworthy.

The reader must himself find the excellent things in this storehouse of London's vestiges. There will be something new and perhaps surprising for everyone. An example of the less known buildings in the City is the Synagogue of the Spanish and Portuguese Jews in Bevis Marks, erected in 1700, and preserving some of the fittings of the earlier work of 1657 and 1674. In the main, of course, the churches and other public buildings are well known to architects, but few are acquainted with the whole of their details. The Commission gives us an exhaustive inventory, even to the least important fittings, and no one who starts out to study the architecture of London will be able to do without so admirable a book of reference.

The volume has an able preface, summarising its contents, a full armorial, a glossary, and an index which, under each heading, gives a chronological list of examples. There are other lists and tables, such as those that summarise the cost of Wren's Churches and give the parishes in each Ward of the City, and there is a useful map. When the forthcoming fifth volume dealing with the Eastern District is issued, London architecture will for the first time be fully recorded up to the year 1714. If the story is ever carried further, the Commission's continuators could scarcely have a better model for their work.

WALTER H. GODFREY [F.R.I.]

SZUKALSKI: *PROJECTS IN DESIGN, SCULPTURE AND ARCHITECTURE* 40. Chicago 1929. [University of Chicago Press]. 90s.

Stanislaw Szukalski, the Polish sculptor, is an individualist whose individualism is so uncompromising that on occasion his work is entirely without context and little short of incoherent. Such men as he fail to realise that all "being" is a problem of relationship and that the artist is as much under this law as the humblest of God's creatures.

This collection of his works displays to the full his force of character and will to self-expression at all costs. It is made additionally interesting because, although he despises art critics and writers on aesthetics, he feels compelled to explain himself, and one is not only arrested by his vigour and originality as a sculptor but also forced to acknowledge that his philosophy merits careful consideration. Let him speak for himself:—

"From creating learn how to create, not from learning."



—this is his motto. "Do not show the student masterpieces of the past until he is able to create his own primitives and you will oblige him to invent a new, worthy, native art." Szukalski does not, however, explain why this new art will be "worthy," which is the crux of the matter; surely the worthiness will depend on a number of factors in a civilization which is not controlled by the expressionist.

"Why the average man recognises the deed only in the form of (immediate) results is because he is a consumer" (as opposed to creator). "When the race declines and its vitality gives place to tradition and a lazy adherence to its established modes . . . the acuteness of the instinct for self-preservation (of individuality) becomes so low that almost every choice it makes will prove detrimental to its well-being."

"When the arts are virile and creative they aid materially in the making of a new culture." "The only way to produce a culture of our own is to force the new generation to find it within the walls of its own heart."

He proceeds to attack existing educational systems as being destructive of the creative faculty and presents the phenomenon that we have to-day more art education than ever has existed before, but less art. Szukalski now becomes almost abusive.

"Paris, Paris (as typical of academic instruction) a curse on you—none of our countries, yours or mine, will ever create its own culture until the navel cord of tradition, holding us to that gangrenous body Paris, is cut." "The misguided fathers and the stalacmites misnamed educational advisers drive swift learning Tobians to Paris only to have them return empty handed." "If I believed in the devil I would suspect that Da Vinci was his best contrived tool for creating the academic system to destroy creative ability. Da Vinci—a fifth rate artist—of typical Germanic mentality craves to win by science what is missing in his blood and stock."

The sole constructive idea which Szukalski offers is his motto "From creating learn how to create, not from learning." This is merely putting into practice Croce's philosophy of aesthetics, namely, that intuition, not intellect, is the source and director of the creative faculty, but it goes further, for its logical implication is to relegate all practical, as well as intellectual, considerations to an entirely subordinate position in the world of artistic creation. Szukalski makes no contribution to a solution of the problem of the relationship of imagination and intellect. His sculpture, viewed with an entirely unbiased mind, displays vigour and is intensely dynamic, but at the same time is involved and tortuous like that produced at the climax of some primitive civilisation such as the Aztec. It is utterly pagan in feeling with its atmosphere of fear fought down by ruthlessness.

His architectural projects disclose all the sculptor's tendency to assume passivity of material, as though, by dismissing from the mind the complex factors which determine the character of building, preconceived effects can be made the sole arbiters of architectural form. One thing he fully comprehends, namely that as the musician deals with sound, so the plastic artist deals with light, and his handling of surfaces is skillful as well as original. Most of the designs appear entirely lacking in scale and they give no clue to their size. Construction and such

necessary features of practical utility as windows, doorways, roofs and chimneys are falsely subordinated to a sculptural effect; the reason for this is not far to seek for he says—"What makes an architect, in my conception of the term, is the aesthetic element of his work, not construction or utility. The technical part of an architectural project can be taken care of by an engineer or contractor, for theirs is a learnable science."—Surely the "aesthetic" element only makes half an architect, and since the rest is a learnable science he must learn it, for Szukalski quite fails to realise that the engineer or contractor may turn round and assume that he is equally capable of imposing on technical knowledge both the right and the capacity to create in the aesthetic sphere.

R. A. DUNNAN [A.].

## Correspondence

### THE DESIGN OF MODERN RAILWAY STATIONS IN EUROPE AND AMERICA.

11 March 1930.

To the Editor, JOURNAL R.I.B.A.—

DEAR SIR,—Owing to the lateness of the hour I hesitated to put forward a point of view not touched upon by any other member of the audience on the occasion of the lecture on "The Design of Modern Railway Stations in Europe and America" by Mr. Frank Pick. As I find others are in agreement with me I venture to submit the point for consideration.

I would respectfully suggest that it is unfair to compare the continental railway stations with those of this country. Most of the continental railways are State-owned and the stations are erected on large government sites and at government, or rather public, expense. They are, therefore, built in the monumental style and in a spacious setting. On the other hand the railways of this country are privately owned, and the big stations are financial propositions and must yield as much revenue as possible; hence they have to be constructed as hotels, flats, or blocks of offices for revenue purposes. This being so, a very different problem in design arises, and one moreover offering much less scope to the architect.—I am, Sir, yours faithfully,  
DONALD S. PROSSER [A.].

### EXHIBITIONS OF COMPETITIONS DESIGNS.

11 March 1930.

To the Editor, JOURNAL R.I.B.A.—

DEAR SIR,—I would like to suggest to the Competitions Committee that it would be a great advantage for the designs, when they are placed on exhibition, to be accompanied by the descriptive Report and Estimate. In the case of one exhibition that was held some time ago, these documents did actually appear some few days after the opening date, but in the case of two other recent exhibitions, they were not, so far as I am aware, on view at all.

I would even respectfully suggest that the general clause in the Conditions, which deals with the exhibition, might even be amended to guarantee that both the Report, and the Estimate, would be on view with the drawings.—Faithfully yours,

G. WYVILLE HOSIE [A.].



## CALTON CRAG SITE, EDINBURGH.

We print below a copy of a letter which has been sent by the Royal Incorporation of Architects in Scotland to all Scottish Members of Parliament and Scottish Representative Peers.

THE ROYAL INCORPORATION OF ARCHITECTS  
IN SCOTLAND.

15 Rutland Square,  
Edinburgh.

13 March 1930.

*Calton Crag Site, Edinburgh.*

DEAR SIR OR MADAM,—I am directed by the Council of the Royal Incorporation of Architects in Scotland, a body representative of over eight hundred members, to appeal to all Scottish Representative Peers and Members of Parliament as to a matter in which the whole architectural profession of Britain is deeply concerned, and that of Scotland in particular.

I refer to the growing tendency of H.M. Office of Works to invade what was formerly a considerable portion of the sphere of members of the profession in private practice. Formerly it was the custom to confine that office chiefly to its main and original function, namely, the repair and maintenance of Government buildings; of late years, however, particularly since the war, the Office of Works has been permitted an expansion of its functions, for which there is no precedent.

The immediate occasion of this appeal has been the Government decision to entrust the designing of certain buildings to be erected on the Calton Site in Edinburgh to the architects of H.M. Office of Works. This decision is entirely contrary to a decision of a Scottish Departmental Committee, appointed in 1912 by the First Commissioner of Works, and consisting of the then Secretary for Scotland, the Lord Advocate, Lord Tullibardine, and Mr C. E. Price, M.P. This Committee decided in February 1913, after very careful consideration of the whole question, and after consultation with the First Commissioner, that the buildings on the Calton Site should be thrown open to public competition.

On the occasion of the visit of the present First Commissioner of Works to Edinburgh in December 1929, he asserted that he would not think of proceeding in this matter in defiance of public opinion. Public opinion in Scotland has, at every stage of the controversy, been expressed in the strongest and fullest manner in favour of open competition, and against the imposing on Scotland of London Departmental architecture. Save for reiterated declarations made on behalf of the Office of Works of its intention to proceed departmentally, no notice has been taken of these protests.

You are doubtless aware that, on the initiative of the Prime Minister, the Lord Provost of Edinburgh is meantime setting up a local representative Committee to deal with the whole question of public buildings in central Edinburgh. To the unanimous regret and disappointment of the whole community, however, the Calton Site, which is the crux of the position, is excluded from the purview of this Committee. My Council cannot but

feel that the Office of Works has made use of the plea of urgency to prejudice this matter, particularly with reference to the Sheriff Court building, in order that the Office of Works may retain the position it has usurped. In view of the unanimous desire for open competition, as recently expressed by the public Press throughout Scotland, and by practically all representative public and semi-public bodies in Edinburgh, and as endorsed by the Lord Provost and four-fifths of the City Council, my Council further feel that the insult to the intelligence of the Scottish people implied by the entire situation is as patent as is the breach of good faith to the architectural profession, for which the Office of Works is responsible.

The reiterated statements emanating from the Office of Works, to which allusion has been made, have been couched in language of a nature highly disparaging to the architectural profession in Britain. These statements have contained assertions which are not substantiated by fact, and are obviously designed to mislead the public, and to prejudice them against architects. My Council read in them what is tantamount to an unwarranted declaration of war on the profession, and see no alternative but to accept the challenge. Neither the profession nor the public will be satisfied until the Office of Works is made to understand that it is the servant of the public, and not, as it would appear now to be, its master.

These facts are stated as a matter of principle, and not merely as part of the controversy raging round the unique Calton site.

The architectural profession of Scotland demands of Government the same right in the present and future as it has enjoyed in the past, namely, to regulate with the people of Scotland Scotland's architecture. The matter has an aspect as wide as that of architecture—a Scottish national aspect. Our Scottish architecture is an expression of our national life, and is associated with such world-renowned names as Bruce, Adam, Hamilton, Playfair, Thomson, Rowand Anderson and Lorimer. The Scottish people regard it with just pride, and recognise that its great traditions are still alive. They view with grave concern the modern tendency to officialize architecture, a tendency which they feel to be inimical to the survival of these traditions. They apprehend one danger, amongst others—the reduction of the character of the Scottish capital's architecture to the level of that of an ordinary English town. Towards this disastrous end nothing could contribute more effectively than that outstandingly important buildings in the capital should be departmentally designed.

In sending this open letter to all Scottish Members of Parliament, my Council venture to suggest that these should forthwith organize themselves into a deputation to the Prime Minister, who has already shown his great interest in this and kindred matters.

I am, Dear Sir or Madam,

Yours faithfully,

(Signed) A. NICOL BRUCE, W.S.,

Secretary.



## Registration of Architects

BY MAJOR HARRY BARNES [F].

[A Paper read before the Edinburgh Architectural Association on 4 March 1930.]

I AM here to-night at the request of your Association and in my capacity of Chairman of the Registration Committee of the Royal Institute of British Architects, to say something to you about the general question of registration, but more particularly to describe to you the origin, the position, and the prospects of the Registration Bill. I feel that in this city, in this home of philosophers, I need make no apology if at the outset I try to show you a thread of philosophy running through this fabric of registration.

There are people who seem to fancy that this idea of registration is a novel thing, sprung, as it were, full grown from the brow of that Jove whose Olympus is in Conduit Street. Nothing of the sort. What we are facing in the architectural profession is the slow development of an idea which has long flourished among men who practise in other arts and professions. It has always been felt to be a convenience and a matter of public interest that men who practise in different walks of life should be so distinguished from their fellows. The host of uniforms, insignia, and costumes which made picturesque the Middle Ages is nothing more nor less than a reflection of this principle operating in the affairs of men. These still survive in part and are manifested to us on functional occasions; but upon the whole this method of distinguishing the avocations of men has fallen into disuse, and it is not possible in this simple and convenient way to learn of a man when we meet him in what occupation he is engaged. In place of it, very largely in substitution for it, men are distinguished by affixes and suffixes. Mystic letters or abbreviations before a man's name, or after it, tell you in short, if not what he is, what he does. These appendages, prehensile or otherwise, are not of arbitrary origin; they are conferred; they denote membership of societies and institutions; they are entered on records, on rolls, and in registers. They are at once a distinction and a safeguard. They are a distinction to those who bear them, because they record the fact that they have been instructed in the knowledge which should be theirs; they are a safeguard to others who by reason of the complexity of life are compelled to place their interests in other hands, and who in so doing require to be assured of the competence of those to whom their affairs are entrusted. In a primitive state of society man may be all things to himself; he may be his own lawyer, his own doctor, his own priest, his own architect; but such a state of society, if it ever exists, soon disappears. It may be a misfortune, but as life grows

more complex we are of necessity compelled to entrust not only the larger interests of our life but also the smallest details to the honesty and competence of others. Engrossed as we must necessarily become in the conduct of these affairs, to which we in our turn have devoted our working hours, we are left in our leisure little opportunity to acquire that knowledge which it is necessary to have if we are to be well served and well provided. None of us is capable to any very considerable extent of distinguishing any range of quality in those textiles from which our clothes are made or, indeed, in any other material out of which the comforts of life arise and its necessities are supplied. We grow more and more to rely upon reputation, upon trade marks and brands; we cannot conduct personal investigations and obtain proofs.

The whole of what I have just said is further supported by the movements which form to-day so large a part of political thought and agitation in respect of the manufacture and distribution of commodities, and is strictly cognate and related to the question to which I am now addressing myself. The purchase of commodities involves risks against which we insure by the safeguards to which I have alluded. The employment of services also involves risks, and the safeguards that are offered to the public in respect of such employment are generally to be found within the field covered by the term "registration." All that lies behind that word is old, is traditional, is closely wrapped up with our social organisation, operates in the case of the great professions of the Church, the Law, the Army, the Navy, and also in regard to other professions no less honourable whose organisation is of more modern growth—medicine, dentistry, nursing. The need for it in a still later development of professional work—that of accountancy—is at the moment being urged.

I have said enough, I think, to show that the idea of registration is no novel thing in our general social life. Let me now consider with you as to whether the idea is new to us as architects. Let us look at the growth and application of this idea to the architectural profession. I do not propose to delve deeply into the past, though that might be done, and to inquire closely how far the principle obtained in respect of those master masons to whom we owe the magic of mediæval architecture. I will content myself with a much later origin, but one which is, at all events, sufficiently removed from us to have acquired a respectable maturity. It is nearly half a century since that from the parent body, the Royal Institute of



British Architects, there broke away a number of men who were convinced that the interests both of the public and of the profession were involved in the principle of registration. So convinced were they that even that severance, painful as it must have been to many of them, seemed unavoidable. The Society of Architects so formed, though never acquiring the position and influence of its parent—and that for reasons to which I shall presently allude—became, both in numbers and in influence, a body worthy of respect and consideration, not only for the conduct of its own affairs but for its success in penetrating the opinions of architects generally with the conviction that registration was of the importance they believed it to be. Such success might reasonably have been expected to have added considerably to the numbers and importance of the Society of Architects, and no doubt that would have been the case were it not for the fact that during the last half-century there developed in Great Britain and Ireland a body of allied societies who have been able, in that practical spirit of compromise which characterises our people in every department of life, to reconcile the holding of convictions on the matter of registration with continued and unbroken association with the Royal Institute of British Architects. But the convictions were not dead; they were alive and fertilising, and in the course of time so penetrated the great body of members in the Royal Institute of British Architects that it engendered the conclusion that there was nothing in the now common view on registration which any longer need separate the Society of Architects from the Royal Institute of British Architects. Many of you will remember the movement for unification which started a decade ago, and few of the recollections of my life are more inspiring than the recollection of a meeting in Westminster, where in a hall packed with architects from every part of the country, keenly interested in the subject-matter of the meeting, an overwhelming majority decided that forty years' wandering in the wilderness—I will not say which wilderness and I will not say by whom—were to be terminated by a joint entry into the promised land. To drop from so metaphorical a description of the proceedings and to speak more soberly, the reunion of these two bodies was sealed by a solemn covenant that the Royal Institute of British Architects, so reinforced, would pursue the promotion of a Registration Bill until registration was achieved. That covenant has been implemented—and I am pleased to be able to use that word for the first time before a Scottish audience; I learnt it from Scottish Members in the House of Commons; it seems to me to be a good word; it expresses what we are doing and what we are continuing to do.

So much for the main line of the history of this idea of registration in the architectural profession in this

country. My treatment of this part of my subject would, however, be incomplete if I did not here and now refer to what has taken place outside the confines of these two islands, but within the confines of that great organisation the central administration of which is to be found at No. 9, Conduit Street. I shall say something later about that organisation itself, but here it is sufficient to say that in the Dominions of Canada and New Zealand, in the Commonwealth of Australia, in the Union of South Africa, and in the Crown Colony of Singapore associations of architects, linked up with and federated to the Royal Institute of British Architects, have secured the statutory recognition of this great principle.

I have, I think, said enough about the principle involved, and I have established, I think, that it is of sufficient antiquity to receive acceptance from the most conservative of our profession. I now come to the history of the Bill at present before the House of Commons. In fulfilment of their pledge, the Royal Institute of British Architects set up in 1924 a Registration Committee. That Committee did me the honour of appointing me Chairman, a post it has been my privilege to hold since that time, and which I still hold. I am, therefore, in a position to tell you the whole story of the negotiations, concessions, and compromises which have led to the Bill as now drafted. The Committee was composed of old members of the two amalgamated bodies, and it is a matter of the greatest pleasure to me to say that from first to last there has been no question on the part of those old members of the Society of Architects who sit or who have sat on that Committee as to the sincerity or completeness with which members of the Institute forming the remainder of the Committee have devoted themselves to the carrying out of the pledge. We soon found out, as do all those who endeavour to put principles into practice, that there were difficulties. Logic may flourish in the schools; it tends to wither in the Senate. We found ourselves attempting to find words which would apply the principles of registration, and everyone raised obstacles in our path. We found ourselves confronted by sister professions, between whose territory and ours it was difficult to find the frontier line. We found ourselves confronted by practices to which our principles would put an end, practices of so continuous a growth as to have rooted themselves in that stubborn soil of vested interest; and over all the supreme difficulty of all those who would invest the social organisation with limitations and regulations which deplete or appear to deplete the common fund of freedom upon which all draw. We soon found that every argument against the Bill would have its exponents, that we should have to meet them in debate, and that our success would depend on our being able to convince them or Parliament, the arbiter, that the opposition was ill-founded,



based on misapprehensions, unreasonable, or unfair. Will you blame us if we came to the conclusion that it was impossible to anticipate or to meet all possible objections to our proposals; and that the best course we could take was to frame our Bill in the simplest possible form, setting down the full measure of what we conceived would be required, well knowing that on its introduction we should become acquainted with every objection that could arise to it in any quarter; being possessed all the time of a spirit of willingness to meet such objections reasonably, temperately, and fairly, and to concede to the furthest extent all that could be conceded in the way of concessions and compromises without destroying the Bill? That spirit has, I venture to say, marked the whole of our proceedings on this Bill; indeed, in our own ranks there are many who believe that we have gone too far, that not only the form but the substance of the Bill have been modified to such an extent as to deprive it of any value. Such a view I can understand and appreciate; but I think it goes too far.

It may not be an inappropriate analogy to use to a body of architects that "Rome was not built in a day." For this generation all that may be possible is to establish the principle of registration; be it so, its development may safely be left to those generations which follow. However that may be, events proved that we were fully justified in our forecast. Opposition to the Bill did develop—developed in some cases on lines and by reasons which were entirely unworthy, but in the main upon lines which were honourable and reasonable and which we came fully to understand and, I think, fully to meet. We were gratified at the outset by the fact that the Bill did meet with a very large measure of support; and at this stage I would desire to express, on behalf of my Committee and of the whole body of architects at the back of this measure, our thanks to those Members of the House of Commons who have consistently supported us; and our appreciation of their efforts. I do not propose to particularise in respect of any of them, though that is not to say that such distinction would be impossible, but it would be an ungracious task, and I am quite certain that those who would profit by it most would desire it least.

It may seem curious, and there is perhaps a little touch of irony in the fact, that the most substantial amendment to the Bill was due to the opposition of one of our most distinguished and unflinching supporters.

The Bill as introduced proposed to give a statutory meaning to the word "architect," and to limit the use of that term to those who were on the Register. It was to that proposal that this opposition was directed, and directed on the ground that the term was an old term, a common term available to all, used by all, and that whatever dangers lay in such general use must be safeguarded in some other way than by the appropri-

ation of the term to a limited and exclusive meaning. It was held that there was a sort of common right in the term. The enclosure of common rights has never been popular; there has always been an instinctive rebellion against it; arguments can always be found for it, but they are arguments which find their opponents in that intuitive opposition to any diminution of the general freedom to which I earlier alluded. Confronted with this opposition, we felt it was a real Parliamentary opposition and did not arise from those to whom it was a matter of legitimate interest to oppose us, or from those uninated by even less worthy motives, but an opposition based upon general principles to which the House of Commons might readily be expected to give assent. We considered the point in the spirit in which it was made; and while not admitting to the full the encroachment that it was suggested we were going to make, or crediting the dangers which it was assumed would arise, we felt that it was not possible to resist it and that we must make the necessary change. *That change made then in the fundamental framework of the Bill has continued throughout.* The point was made on the Second Reading of the Bill, and it was only by giving assurances on it and expressing a willingness that the Bill should go to a Select Committee that the passage of the Bill was secured. It was evident that this was the main point of opposition, that there was general support in the House to the measure as a whole, and only such opposition to details as might reasonably be expected to be removed in Committee. We can therefore say with perfect truth that, as far as the principle of the registration of architects is concerned, it has been adopted by the House of Commons, and later, as we shall see, by the House of Lords, and that nothing but the exigencies of Parliamentary time or the incidence of Parliamentary tactics have prevented it becoming law.

The Bill went to a Select Committee, for which course I am devoutly thankful. A measure that can stand the test of examination by a Select Committee is a well-proved and well-founded measure. The proceedings of a Select Committee give the amplest opportunities for all opponents of a measure to present to the fullest extent their opposition to it, and to support it by evidence. The proceedings in a Standing Committee are not so convincing. A Bill may receive acceptance by a Standing Committee under the rules of the House without its provisions having been fully considered and without the minority in opposition to it having had the opportunity to demonstrate its faults. It is not so in the case of a Select Committee, and, despite the subsequent fortunes of the Bill, I shall never cease to be glad that it received so complete an examination. The proceedings before the Select Committee are in print and may be studied by all those who care to do so. They will find there set



out every argument that could be raised against the Bill. It was my responsibility and privilege to be entrusted by the Registration Committee with the burden of presenting the case for the Bill and of meeting the opposition to it. How that was discharged I must leave to others to judge. It is perhaps sufficient to say that, while the irregularities of our railway service deprived us of a vote at the last meeting of the Committee and led to the technical report by the Select Committee that the Bill was not proved, the report contained within it the statement that that conclusion was not the opinion of the majority of the Committee, and that it was hoped that the measure would soon again be submitted to the House for its consideration and approval.

Perhaps before dealing with the arguments against the Bill it would be well for me to complete the outline of its history. The Bill, subject to amendments, the origin of which I will describe when dealing with the opposition to the Bill, was reintroduced the following year, and was fortunate enough to secure an early place in the ballot. Private Members' Bills, as you know, are taken on Fridays; the proceedings of the House of Commons terminate weekly on that day at an early hour. Many Members who have been engaged there constantly all the week are anxious to return to their ordinary duties. It is always difficult to keep the House on a Friday, and these facts afford opportunity for snap votes to be taken, the result of which may, and often does, give an entirely false impression of the real opinion of the House. We were very unlucky. During the lunch hour a persistent opponent of the Bill drew attention to the fact that there were not forty Members present in the House. A Division was called and taken before the requisite number appeared, and the House was counted out. Disappointing as the result was, only those who are wilfully desirous of perverting the facts with regard to the Parliamentary opposition to this Bill can draw from it the conclusion that Parliamentary support does not exist. The progress of the Bill so unfortunately terminated in the House of Commons was resumed in the House of Lords by its introduction by Lord Crawford in 1926. Very fortunately there we found a House with time and opportunity to give the consideration to the Bill which it merits, and those who read the proceedings in that House will realise that it was so considered. Whatever views may be held about the House of Lords, there can be no doubt that it contains amongst its members some of the most acute minds in the country, minds which have, moreover, been continuously devoted to the consideration of large problems, the solution of which in one way or another affect our modern life. The Bill as now drawn emerged from that House with no amendment. The position may therefore be summed up in this

way. We have established the principle of the registration of architects in both Houses of Parliament; we have embodied that principle in a Bill which has secured the approval of the House of Lords, and may therefore be regarded as having successfully met and dealt with the opposition presented in detail before the Select Committee of the House of Commons.

Let us now consider that opposition and its effect in modifying the Bill as first drawn. The opposition may be divided into that directed against the general principle of registration and that against the method proposed to be employed in the Bill. It is not possible to separate these things entirely but a broad distinction between them may be observed. I will deal first with the opposition on the ground of principle and, in respect of it, that which came from other professional bodies. I have before remarked on the difficulty of defining the frontier line between the profession of architecture and other kindred professions. These are all concerned with and I think can be measured by the term, "the physical changes in, on, above, and below the surface of the world." I do hope that no one will think it worth while to challenge that definition; I only put it forward in a spirit of general comprehensiveness to enable me to relate the activities of the professions to which I am going to refer. Works which fall within the above definition involve, first of all, the survey and the acquisition of land. The operations necessitated mainly fall within the province of the surveyor. The land so surveyed and acquired becomes the field for constructional work. If these be of a certain character they tend to fall within the province of the civil engineer; if of another within the province of the architect. Finally, the land so acquired and the works so constructed may be the subject of sale, and then they fall within the province of the auctioneer. You have those four fairly well-defined professions—the surveyor, the civil engineer, the architect, and the auctioneer. I do not propose, nor do I think it necessary at this time, to attempt more closely to define the distinction between these professions. In some cases they are fairly obvious, in others not so clear. It is sufficient, to enable you to realise the difficulties we were confronted with in the original presentation of our Bill, to recall your attention to the well-known fact that you may find men in any one of these professions who combine with it one or more of the others; a surveyor, a civil engineer, an auctioneer, may be an architect, or may be known as such, and that fact confronted us. We had agreed that we could not withdraw the use of the term "architect" from anybody at present employing it. We were then faced with the further proposition that every such person was entitled to be admitted to the Register of Architects. It had been argued that the Bill would inflict damage upon persons



who would not otherwise be subject to it. Parliament has always had a regard for existing interests, and within reasonable limits that is right and proper. Regard to these interests may at times lead to certain ills, but, broadly speaking, it is better to endure ills than to inflict injuries, and more particularly if the ills be of a temporary character. We were not asked to agree for all time to the admission of such persons to the Register, but only in respect of living persons.

Here, again, was a point of general principle, and we felt bound to concede it. The result of the concession was to make it necessary to set up our Admission Committee, who would regulate the entry into the Register of such living persons; and as such persons were in the majority of cases members of certain existing Societies it was necessary to give these Societies representation on the Admission Committee. So the Committee is composed; it is of temporary duration and will in the course of time cease to exist. It is one of those transitory measures which are always found to be necessary when legislative enactments make changes in conditions. The old order changeth to the new, and for its passage some bridge must be found. The Admission Committee is such a bridge, it is a temporary scaffolding which, when the building is completed, will be removed.

On this concession of the Admission Committee and, on request, the omission by their own request of the Institution of Civil Engineers from the operation of the Bill, the opposition of the sister professions was and is removed.

The remainder of the opposition to the principle of registration was within our own ranks, and was based on the view that the registration of the architect is a limitation of the opportunities open to that genius who, while unable to meet the necessary requirements for examination, is yet able to achieve great architectural works, and would be precluded from these achievements because he did not bear the hall-stamp of the Register. It is difficult to deal with this view seriously; it has never been really weightily advanced. We are familiar with the names of men who are practising who have never been through the schools or passed examinations, but who have achieved great eminence in their profession. None of these men have, to my knowledge, expressed themselves in opposition to the principle of registration. It may be that they are indifferent; it is more likely that they realise that, given genius, there is nothing in the Bill to restrict its use. It is said that hard cases make bad law; it is equally true that society would be badly administered if its regulations were based upon abnormal cases. Nietzsche may inveigh against the slavery of society. From time to time men may arise who subvert or reconstruct it, but in its administration regard must mainly be had to common requirements and average standards; and

it is in respect of these, and these alone, that the usefulness of registration is contended for. The individualist in his most complete expression desires no law. The artist is an individualist, and it is natural that he should shy at any restriction, even if it be more apparent than real, placed upon his efforts; but of all artists the architect can least be individualist; he more than any other requires the collective co-operation of all sorts and conditions of men. It is not necessary to remind the countrymen of Burns that a poet with a few mouthfuls of air (for which he is indebted only to his Creator), may make himself immortal. The artist with a few inches of canvas, his palette and his brush may be independent of his fellow men. But the architect is the child of society; he comes into being, as the genie in the tale, at the call of others; his operations are limited by the collective capital and craftsmanship of his fellows; they are frustrated by low standards of taste and culture, they are impeded by unregulated activities, individual and communal. He is not so much a member of the orchestra as a director of it and dependent on it, and any measure which in the long run tends to raise the standard of culture, to improve the qualities of craftsmanship, will be found to expand and not limit the field of his activities.

This, I hope and anticipate you will agree with me, will be the effect of the application of registration to the profession of architecture.

I now come to the opposition which was directed not against the principle of registration but against the methods proposed to be employed in the Bill. This appears in two main forms, the first being that the control of the Register is too largely architectural; the second, that the control is too largely that of the Royal Institute of British Architects. The opposition under the first head is confined to that of the Institute of Builders, and was, and is, of an entirely unexpected character. A good deal of resentment has very naturally and, I think, properly been felt at opposition coming from this quarter, particularly in its latest development, namely, that of a petition against the modifications which are proposed in the By-laws of the Royal Institute. I think it is regrettable that anything should arise which should spoil the happy and harmonious relationship which can honestly be said, as a rule, to obtain between the architect and the builder. If we are to have building at its best—and I know no better definition of architecture—we can only have it by complete and cordial understanding and co-operation between the architect, the contractor, and the craftsman; and all those of us who are interested in architecture, to whichever of these three classes we belong, will best serve our common interest by promoting these cordial relationships. They are, and one must frankly say it, endangered at the present



moment, but my desire in anything I say here and now is to minimise that danger and to restore that older and happier relationship, and in that spirit I recognise that while on the surface the opposition of the Institute of Builders might be regarded as merely fractious and captious, there is, I think, at the core of it something which may be respected and which ought to be understood. If I am right in my penetration of that core, I think it is an idea that that co-operation of which I have spoken—of architect, contractor, and craftsman—should be embodied in a great visible and material organisation whose common concern would be their common enterprise; as it were, a great university of architecture wide enough in its scope and catholic enough in its interests to find a place side by side for those whose conceptions become ultimately the care of the craftsman, for the craftsmen themselves and for those who form the liaison between the architect and the workers in stone, brick, metal, and all other materials which go together to make up the architectural mass. Such a vision of architectural education is one to which we could all, I think, respond, but it is not to be achieved by carping criticism of the body which has borne the whole burden of architectural education during the last hundred years. The idea comes, as Shakespeare would say, in too late a week. If it is to be realised it can only be through the exhibition of a generous spirit of appreciation of the work that has been done, and of willingness to share in it along the lines which present opportunity affords. The Institute of Builders is represented on the Board of Architectural Education, and I invite it to use its place there in the promotion of the ideals that it holds, as being a surer method of attaining those ideals than the policy on which it has, I think without a full appreciation of its nature, embarked. The main control of education in architecture must, as long as the callings of the architect and the builder are separated, be in the nature of things mainly in the hands of architects. When we come to see, as I hope to show you shortly, the work of the Board of Architectural Education, you will see that that control has been exercised in no arbitrary fashion.

The last phase of opposition to the procedure under the Bill is based on the ground that the control of the Register is too largely in the hands of the Royal Institute of British Architects, and, that being assumed, it is further argued that such control is being sought by the Institute, first, with a general intention of enhancing its membership and emoluments; secondly, in order that it may impose unfair conditions on the builder and contractor; and, thirdly, that it may be used to increase the emoluments of its individual members by imposing upon the public unreasonable charges. These grounds seem to need only to be stated in their present form to dispose of them. They are so obviously

without foundation that it may be said: Why deal with them; they only need to be stated to be refuted; I quite agree—that is, I quite agree if they are only to be stated in audiences such as the one I am now addressing—but there is no such limitation. Those statements are broadcast; they are made to Members of Parliament who have ultimately to decide the matter we are now discussing. Members have little time to bestow upon a measure which, though important in itself, is yet, in relation to many of the larger things to which our Legislators have to direct their attention, small in comparison. So I must deal with them. Let me take, first of all, the charge that the Bill places the control of the Register too much in the hands of the Royal Institute of British Architects. First I ask, if that be true where else could it be placed? Is there any other body of architects which on any ground has the least claim to be associated with the Institute on any principle of parity in this matter? If, as in the medical profession, there had existed a number of bodies comparable in age, comparable in influence, comparable in position, I should have agreed that a general architectural council might have been formed, but no such bodies exist. The only body which, if it had existed, could have put forward any such claim, was the Society of Architects, but that body no longer exists; it has become, by that kind of honourable union which in the early days of the eighteenth century brought your country and mine into the relationship which now exists between us, a constituent and component part of the Royal Institute itself. Since that union has taken place, one or more societies have come into being for the purpose of associating members of our profession together, and, it may be, with members of other professions. I do not know how many of these societies still exist. I do know that one of them has opposed the Bill, not in principle but on the ground to which I am now speaking. It has been met throughout, in my opinion, with all the consideration to which its position entitles it. I have, I think, as Chairman of the Registration Committee, done more, in the opinion of some of my colleagues, than I should have done to meet their views. I have attended a meeting of their Council and discussed with them their demands, and have indicated the degree to which those demands could be met. They have a place on the Admission Committee; they have a place on the Board of Architectural Education. I have always been prepared, and I am prepared now, to advise my Committee to go to the extreme limits of concession that would meet their demands; but I cannot admit that they have established any case for association with the Royal Institute of British Architects in this matter on terms approaching equality. In that attitude I am supported by the proceedings before the Select Committee, and I think that no impartial person reading



that Report but will agree that the terms upon which the Society in question are now associated in the Bill with the control of the Register are terms which, if they are to be modified, can only be modified to a very slight extent. I suggest to this Society that it, in its turn, will best serve its own interests by accepting the position that the Bill provides, and in that position justifying the demands which it now makes. In saying this I do not rule out any further discussion between the Royal Institute of British Architects and this Society, but I do indicate the limits within which such a discussion can usefully take place.

I now turn to the point which may be briefly stated thus: 'The passage of the Bill being assumed to enhance the position of the Royal Institute of British Architects—though I do not accept that view—that position will be used to impose unfair conditions of contract upon the builders of the country. I will make the question as to the enhancement of the position of the Royal Institute of British Architects my last point, and here I will deal with the suggestion—the unworthy and unwarranted suggestion—that the position of the Royal Institute of British Architects will be used or has been used to impose unfair contract conditions upon the builders of the country. It is one which I am sure is not supported by any but an insignificant number of those builders who, up and down the length and breadth of this land, are continually engaged, in co-operation with architects, in carrying out works of construction. If it is intended to carry with it any description of what has happened in the long history of contract building, it is the merest travesty of the actual facts. When I entered the profession as a pupil some 45 years ago, the position which the architect held in building works was infinitely stranger and more absolute than that position is to-day. The whole history of the past 45 years is that of a continuous devolution by the architect of his powers in matters of dispute to arbitration, and a continual record of the improvement of building contracts in the direction of fairness and equity as between the three parties concerned. We all of us know that at the present moment we are in a period of gestation; a new contract has to be found, and I am quite sure a new contract will be found. We are all of us familiar with the fact that a form of contract was agreed between representatives of the National Federation of Building Trades Employers and representatives of the Royal Institute of British Architects. We all know that that contract, approved by the Councils of both bodies and by the general body of builders, was rejected at a General Meeting of the Royal Institute of British Architects. The acceptance of the contract by the general body of members in each case was a necessary consequence of the entire proceedings. I do not know that in connection with anything else but

this opposition to the Registration Bill it has ever been suggested that there was bad faith on the part of the architectural profession or the Royal Institute of British Architects in the matter. If the suggestion were ever made I should repudiate it in its entirety. No man knows more than I do of the course of the recent proceedings. It is a matter of great regret to me that the contract agreed upon between the representatives of both bodies was finally rejected. The members who rejected it were entitled to be consulted; they were entitled to form their own views; they were entitled to take what course of action they thought fit. They formed their views—I do not agree with them. They took their action—I do not agree with it, but they had a right to take it, and no charge of bad faith can be levied against them. I understand their views; I appreciate their feeling; the last vestige of authority and control of the architect had been taken from them by the new form of contract. I can understand the apprehensions that arose in their minds as to the practical difficulties that would now embarrass the architect in the pursuit of his profession as a result of the new form of contract. I think they were exaggerated apprehensions: I do not think that such consequences would have followed. I understand that you in this country have for years carried on your profession under a form of contract with very similar provisions. But all those who engage in negotiations learn sooner or later that one must make haste slowly. It is clear that those of us who are charged with the negotiations on behalf of the Institute—and in that respect no one more than myself—went too far in our belief as to the modifications which our fellows in the profession were prepared to accept. We must, however, all of us rejoice to know that negotiations are being reopened; we must all of us hope that they will come to a happy and unanimous conclusion. I am taking no part in them; I do not expect to take any part in them; but if, as having taken part in the previous negotiations, I may be allowed to say a word on these, I would say to my builder friends that the history of contract building in the past shows that there are limits to the stages in which you may proceed, and that they may, without derogation of the responsibility imposed upon them by the builders they represent, well be content to mark another stage which I am certain members of my profession are willing to take, and to leave the ultimate completion of their task to future years.

Confining myself, however, to the relationship of these negotiations to the Registration Bill, I am quite sure that no serious or responsible person on the side of the builders would suggest for a moment that the determination of a new form of building contract is affected the one way or the other by the implications, direct or indirect, of the provisions of the Bill.



I now come to the penultimate point I have to meet—a mean and petty point; a point that should never have been made and for which there is no warrant in the past—the point that the passage of this Bill, if resulting in the enhancement of the position of the Royal Institute of British Architects, will be used by that body to impose upon the public a scale of fees beyond that which is justified. I am almost ashamed to deal with this—it is so remote and so unrelated either to the provisions of the Bill or to the character and action of the Institute. It is quite true that the remuneration of the members of a profession is a proper concern of any body that is representing it. There is nothing to warrant the suggestion that in the architectural profession that concern has been exhibited in any disproportionate way. The charges which are payable to architects are normally payable whether they are members of the Institute or not. The fact that in many cases the Courts have adopted the scale of charges laid down by the Institute as furnishing reasonable evidence of the proper remuneration of an architect, does in fact show that to the common sense of men that scale is a reasonable scale. This point is mere prejudice, a bug-a-boo which those who employ it hope may succeed where all else fails, and with that comment I am content to leave it.

I now come to the last point urged against us, to which I have several times alluded—the general point that the real reason for the promotion of this Bill is a passion for aggrandisement which besets the Royal Institute of British Architects, a desire to monopolise the whole field of architecture, and a conviction that only by the promotion of this Bill can that position be secured. The Royal Institute of British Architects needs no Registration Bill either to consolidate or to aggrandise its position. That position is unique amongst all the professional organisations of the world. In no profession is there any single body which has achieved so commanding a position. Look at it. It is called the Royal Institute of British Architects. Its position is imperial. Not only is the whole surface of these two islands covered with a network of architectural organisations allied to and federated with the Royal Institute of British Architects, but you cannot go into any part of the British Empire, into any Dominion or Crown Colony, where you will not find either already in being or coming into being an organisation of architects who, while directing their attention to their own affairs in their own locality, are yet linked not only by sentiments of interest but by more formal ties to the Royal Institute of British Architects. We are asked to-day to think imperially, to strengthen and consolidate the bonds that bind this Empire together. Those bonds are political, industrial and economic. Not the least amongst them all are ties such as those which link up the members of our

profession, wherever they may be found within the Empire, in that great fellowship of architects presided over by the Royal Institute. Only those, perhaps, who have taken a close personal interest in the organisation of the Institute and in its relationship to its allied societies can appreciate the statesmanship which from generation to generation has brought the Institute to where it is. Commencing as a London society with a small number of members in close contact with each other and cut off in great measure from their provincial brethren, it has developed a constitution which in its way might be a model for other and more important associations. A survey of the past shows the springing up in the provinces of architectural societies (a kind of spontaneous generation) which have grown in numbers and importance, and, so growing, have been brought face to face with problems in the profession which could not be satisfactorily solved within the ambit of their own societies, and under the pressure of those problems have turned to the Royal Institute until at last you have now a closely knit and associated federation, if I may use that word in a loose sense, of allied societies whose influence within the Institute has grown continuously. To these approaches the Institute has responded stage by stage, admitting the allied societies to wider representation and fuller powers until now, under the proposed modification of the new Bye-laws, the final decision on matters affecting the Institute is transferred from a small general body of members able to meet in London to the whole body of members in the two islands. This process of healthy, vigorous expansion on the one side and wise statesmanship and devolution on the other side is proceeding abroad, as it is at home; the relationship between the Institute and the Dominion societies has been modified wisely and prudently to meet present conditions. We shall soon be celebrating the centenary of the Royal Institute of British Architects in new premises that will be the outward and visible sign of the work of the century. The transformation of a Royal into an Imperial Institute of Architects. That great achievement has been carried out apart from registration, and the position of the Institute depends upon no provisions in a Registration Bill. It has an attractive force which has brought within its ranks, and will continue to bring within those ranks, architects of repute and distinction wherever they may be found.

What I have said in these last few words is but the story of the internal organisation of the Institute. There are other things to tell about it. So far from confining itself to the narrow interests of its members, the Institute has always felt to be laid upon it the burden of widening the knowledge and the practice of architecture in its every aspect; it has regarded itself as a great educational institution, and in that



capacity has achieved the notable success of linking its efforts with those of the great orthodox educational institutions of the country. The time will soon come, if it has not already arrived, when there will not be a university in the country which has not included architecture in its curriculum, and which is not represented on the Board of Architectural Education which has been set up by the Royal Institute of British Architects. In the course of the proceedings before the Select Committee it was alleged by way of prejudice that the Royal Institute was concerned to make architecture a close profession and to shut out from it the children of those with moderate means. It was successfully established before that Committee that, so far from this being the truth, the Royal Institute of British Architects had set up a ladder or made a broad highway—I care not which metaphor you use—by which the best architectural education that the country could afford was open to any boy or girl in any elementary school. That is the position of the Royal Institute to-day; it is an imperial body; its activities are interwoven with the whole fabric of education in this country; and to suggest for a moment that such a body needs any enhancement that may come from its association with the Registration Bill is to suggest what is patently and manifestly absurd.

It may be asked, then, why does the Institute take the part it is taking in the promotion of this Bill? You have had the first answer. It is to implement the pledge given on the amalgamation of the Society of Architects with the Institute. The second answer, and the greater, is that the Institute believes that the Bill is for the public good, in that by it and through it there will be a great quickening of interest in the work of the architect. Apart from it, it is clear that there is growing in the country an increasing conviction that the amenities of our modern life are very largely dependent upon good architecture. This Bill is a statement and affirmation of that conviction; it stresses the importance of training and qualification. By the statutory sanctions which it gives to the Board of Architectural Education it will give a great impetus to the education that Board is desired to secure. That education is of a dual kind—the education not only of the architect, but also of the public. Deep must call to deep; there must be an appreciation of good architecture by the public if there is to be a demand for it. The Bill affirms the importance of rescuing the profession of architecture from indiscriminate practice. No one anticipates that anything like its full effect will be felt within the lifetime of this generation; but years count for little in the history of a nation. What counts is not so much time as direction. The work of the architect is to provide a nobler, a more beautiful environment for life, and that has perhaps been too long forgotten. We may expect

that a new generation, fortified by the sanctions which the Bill will give, will find it an easier task to prevent the activities which at the present moment, unregulated and unrestrained, do so much to disfigure this land in which we live.

#### DEATH OF LORD BALFOUR (HONORARY FELLOW).

It is with great regret that we have to announce the death of the Rt. Hon. the Earl of Balfour on 19 March. Lord Balfour was elected an Honorary Fellow in 1910 and Members who attended the Wren Commemoration Banquet on 26 February in 1923 at the Victoria Hotel will remember his characteristically eloquent speech in proposing the health of Mr. Paul Waterhouse, the President.

#### THE ROYAL GOLD MEDAL.

The presentation of the Royal Gold Medal was made to Dr. Percy Scott Worthington, M.A. Oxon., F.S.A., F.R.I.B.A., at the General Meeting on Monday, 17 March 1930. A full report of the proceedings, with illustrations of Mr. Worthington's work, will be published in the next issue of the JOURNAL on 12 April.

#### CHARING CROSS BRIDGE.

The Select Committee of the House of Commons which has been appointed to consider the Charing Cross Bridge Bill is constituted as follows:—Chairman: Sir Henry Cautley, Bart, K.C., M.P., Unionist Member for East Grinstead, Recorder of Sunderland; Mr. A. McLaren, M.P., Labour Member for Burslem, Educated at Glasgow School of Art and Technical College, Glasgow; Mr. J. S. Wardlaw-Milne, M.P., Unionist Member for Kidderminster, an Ex-Governor-General of India's Council; Mr. Guy Rowson, M.P., Labour Member for Farnworth.

#### AUSTRALIAN ARCHITECTURAL STUDENTS' CLUB (IN LONDON).

Australian students are advised that a Club has been formed for the purpose of facilitating study both in England and on the Continent. The Club meets at intervals, when matters of interest are discussed for the mutual benefit of the members. All Australians are invited to join, and further particulars can be obtained from the Hon. Secretary of the Club, Mr. Eric Garthside, 6 Albemarle Gardens, Golders Green, London, N.W. 11.

#### DINNER TO MR. ROBERT ATKINSON [F].

The response to the preliminary notice of the proposed Dinner in honour of Mr. Robert Atkinson, has been sufficient to ensure a very large attendance.

It has now been arranged for the Dinner to be held on Thursday, 10 April 1930, at the Criterion Restaurant. Tickets, 10s. (exclusive of wines), may be obtained on application to Mr. F. R. Yerbury, Secretary, The Architectural Association, 34-36, Bedford Square, W.C.1. Early application is requested particularly as the demand may be in excess of the accommodation available. Cheques and postal orders should be made payable to The Architectural Association.



## Allied Societies

*(The attention of Members of the Allied Societies is particularly called to this page)*

### ESSEX, CAMBRIDGE AND HERTS SOCIETY OF ARCHITECTS

#### WEST ESSEX CHAPTER.

Every part of West Essex was represented at the annual dinner of the West Essex Chapter of the Essex, Cambridge and Herts Society of Architects held at the Strand Palace Hotel in the new banqueting hall on Tuesday, 4 March. Over 60 members and their ladies met at the Old Chapter House, St. Paul's, at 3.30, and after preliminary business had been transacted, a move was made to the "Telegraph" buildings in Fleet Street, where Messrs. Elcock and Tait conducted the party over the buildings, and Colonel Lawson entertained the company to tea.

At dinner Mr. J. J. Crowe presided in the unavoidable absence, through illness, of the chairman, Mr. Christopher A. Shiner, who, however, was represented by his son, Mr. L. Shiner, and his daughter, Mrs. Sheffield. It was announced that the annual general meeting would take place on 3 April.

After dinner, which was delightfully free from formality or speeches, the company was received by the architects for the reconstructed Savoy Theatre opposite, Messrs. Easton and Robertson, and Mr. Sugwell, and greatly enjoyed the experience of a private view of this modernist work.

Afterwards the whole company occupied a block of seats reserved in the best position in the house. The committee responsible for the arrangements was Messrs. Scott, Russell, Hammond, and the honorary secretary, Mr. S. Phillips Dales.

### SOUTH WALES INSTITUTE OF ARCHITECTS.

#### ANNUAL MEETING.

The annual meeting of the South Wales Institute of Architects was held at 6 High Street, Cardiff, on Thursday, 6 March 1930, when the chair was taken by the President, Mr. T. Alwyn Lloyd, F.R.I.B.A. Prior to the meeting, he and Mrs. Lloyd entertained the members of the Council to tea at Messrs. David Morgan's restaurant.

The President delivered his address, in the course of which he said:—

"For a short space this evening I want briefly to summarise what has been done in our own Institute during the past nine months.

"First, as to our membership. This now numbers 277, divided as follows: Central (Cardiff) Branch, 159; Western (Swansea) Branch, 77; Eastern (Newport) Branch, 41. It is very encouraging this evening to have the reports of the varied activities of our three Branches, which have been not only of social and technical interest to our own members, but also of wider significance within the three areas.

"While we all want to see an increased membership, in view of the prevailing difficulties of the time and especially of those in our own country, I think we have reason to feel satisfaction in the size and influence of our Institute. There are, however, many practising architects and assistants in South Wales who are not associated with us, and we must continue our efforts to enrol within our ranks all those of repute who are engaged in the profession. The R.I.B.A. has recently taken a very important step in its unification scheme—the Licentiate class of membership is to be reopened on terms similar to those which existed a few years ago. We supported this proposal, and I feel sure that we shall do all in our power to carry out loyally the policy of the Royal Institute when the petition to the Privy Council for the additional powers is granted.

"In South Wales there have been two outstanding personal events in recent months—the winning of the Rome Prize by Mr. J. B. Wride, A.R.I.B.A., one of our own members and an

ex-student of the Welsh School of Architecture, and the award of the first place in the Swansea Civic Buildings Competition to our esteemed colleagues, both ex-Presidents of this Institute, Messrs. Ivor Jones and Percy Thomas. It is gratifying to record that in a competition in which seventy architects from England, Scotland and Wales took part, a firm of Welsh architects should have secured outstanding success in the design for the new civic centre of our second largest town.

"Under Mr. Pughon and his staff the Welsh School of Architecture continues to make steady progress. Our Institute is proud of its close association with the School. At the prize distribution the other day many successes by the students were recorded, and we have the final recognition of the R.I.B.A. as evidence of the distinguished quality of the work which is being done. It is my earnest hope that in the not distant future the School may receive definite recognition by the University of Wales, which would result in the students qualifying for Welsh degrees in addition to their associateship of the R.I.B.A. I have reason to believe that the University authorities are now carefully considering the whole question of the teaching of architecture and applied art in our country. In what better way could academic encouragement of these fundamental studies be given effect to than by the official recognition, within the University structure, of the Welsh School of Architecture at Cardiff, which is the only one in Wales providing for the full-time training of the young members of our profession.

"Under the joint auspices of this Institute, the Council for the Preservation of Rural Wales and the Association of Welsh Local Authorities, a "Countryside Preservation" Conference and Exhibition was held at the City Hall, Cardiff, last October. The Exhibition was well supported, the public attendance on the last day being particularly good. There were shown many striking examples of spoliation and of safeguarding the countryside, contrasting good and bad building, advertisement display and the maintenance of amenities generally.

"The summer meeting and ladies' day for 1929 took the form of an official visit by the Institute to the National Museum of Wales. There was a large attendance, and the function was a very enjoyable one. The present and the new portions of the Museum were inspected under the guidance of Dr. Cyril Fox, the Director, and Mr. Dunbar Smith, the architect, tea being provided by the Museum Council, to whom our best thanks are due.

"On two important issues affecting the City of Cardiff our Institute considered it desirable to take official action: the design of the new Canton Bridge and the proposed erection of Government buildings in Cathays Park. Although in both instances the results were not all that we would wish, we can claim that our intervention was justified and that good resulted from it. In relation to the Government buildings, our plea to the Departments concerned, which resulted in questions being asked in the House of Commons and strong support in the editorial columns of the *Western Mail*, was for the design of the buildings to be obtained by means of an open competition among architects. For reasons which were fully explained in a courteous letter I received from the Secretary of H.M. Office of Works, this course could not be followed, the plans having already been prepared in that office, resulting from an agreement reached with the Cardiff City Council after their representations as to the urgent need for the erection of the new buildings.

"On another important question—the design for the new Great Western Railway station at Cardiff—Mr. Pughon in an admirable letter initiated useful correspondence in the local



Press: this was followed by favourable editorial comment and interviews with your President and others. These representations have been put forward in the right quarter; I hope that whether the design for the station is obtained by open competition, as I ventured to suggest, or is prepared by the company's architect, our recommendations as to utilizing this wonderful opportunity for building a worthy new "Gateway to Wales" will be given effect to.

"Your Council recently decided to ask the R.I.B.A. to present a medal periodically for the best building erected in South Wales, and the request was readily acceded to. Conditions will be drawn up shortly, and in accordance with a recent decision at the R.I.B.A. It is probable that the medal will be awarded triennially. I think you will agree that such an award will be not only an incentive to our practising members to maintain a high standard in the planning and design of their buildings, but will serve as a valuable indication to the public of the distinction received by the successful competitor at the hands of his fellow-architects.

"At the suggestion of the R.I.B.A. your Council recently set up a Salaried Members Committee to consider certain matters relating to those who are salaried officials and assistants. We have, of course, duties to that section of our membership no less than to the practitioners, and I think this Committee may be relied on for helpful action.

"It has been decided that the letter signed jointly by the President of the R.I.B.A. and the President of the South Wales Institute shall be sent to every Education Authority in South Wales, drawing attention to the need for ensuring that the design of the many new schools and alterations to existing schools, to meet the claims of new legislation, are placed in the hands of properly qualified architects."

The officers were re-elected for the year 1930-31 as follows:—

President, Mr. T. Alwyn Lloyd, F.R.I.B.A.; vice-presidents, Mr. C. S. Thomas, F.R.I.B.A., and Mr. J. Herbert Jones, F.R.I.B.A. (Swansea); hon. treasurer, Mr. Harry Teather, F.R.I.B.A.; hon. auditor, Mr. E. H. Fawcaker, F.R.I.B.A. (Newport); hon. librarian, Mr. R. H. Winder, M.A., A.R.I.B.A.; hon. secretary, Mr. Ivor P. Jones, A.R.I.B.A.

Members of Council. The following were elected: Central (Cardiff) Branch: Messrs. W. S. Purchon, M.A., A.R.I.B.A.; J. Williamson, A.R.I.B.A.; Percy Thomas, F.R.I.B.A.; L. Llewellyn Smith, L.R.I.B.A., M.B.; T. Edgar Smith; A. G. Lynham, A.R.I.B.A.; C. F. Jones, A.R.I.B.A.; J. B. Fletcher; Lennox Robertson, F.R.I.B.A.; W. D. Thomas; Lewis John, M.A., B.Arch., A.R.I.B.A.; Gordon Griffiths; with Messrs. H. J. Hughes, A. G. Fletcher and A. J. Haines, representing Associates and Students.

Western (Swansea) Branch: Messrs. J. Herbert Jones, F.R.I.B.A.; C. S. Thomas, F.R.I.B.A.; O. S. Portsmouth, A.R.I.B.A.; G. R. H. Rogers, L.R.I.B.A.; H. A. Ellis, M.A., F.R.I.B.A.; Edwin Smith, A.R.I.B.A. (Neath); and representing Associates—Messrs. C. W. Geddes, L. W. Devonald.

Eastern (Newport) Branch: Messrs. Walter Rosser, F.R.I.B.A.; C. F. Ward, F.R.I.B.A.; Johnson Blackett, A.R.I.B.A.; C. F. Compton, L.R.I.B.A.; and representing Associates—Mr. J. E. Lenton.

#### WEST YORKSHIRE SOCIETY OF ARCHITECTS.

Mr. G. H. Foggitt, president, took the chair at a meeting of the West Yorkshire Society of Architects, held at its Leeds headquarters on 27 February, when a lecture was given by Professor A. E. Richardson, of the University of London, on "Social Life and Art in France During the Eighteenth Century."

In the course of his paper the lecturer said: When Louis XIV died in 1715 he left a country impoverished by ambition and disastrous wars. But, on the whole, the reign of Louis was wonderful. The influence of the king had called forth the skill of a brilliant coterie

of artists. The king had caused to be erected the largest palace in France, and by his zeal for works of art the monarch had made Paris the academic centre of Europe. But he had committed the fatal blunder of revoking the Edict of Nantes, which drove more than a quarter of a million Huguenots from the country.

Louis was succeeded by his great grandson, the Duke of Orleans in the meantime acting as Regent. A few years later, under the skilful manipulation of Cardinal Fleury, France again took the lead in European politics. The struggle between France and England now became one for world supremacy. The ultimate advantage was on the side of England, and the fight ended in the gain of Canada and India. By the end of the reign of Louis XV, 1774, France was in a weakened state. The finances were low, the monarchy was far from strong, the people were muttering against the privileged nobility. The next king, Louis XVI, during his reign reaped the harvest of the mistaken policy of his predecessors. The personal feeling between the social grades came to a head; republican and revolutionary ideas were fostered. It is clear that the writings of Montesquieu, and of the encyclopaedists Voltaire and Rousseau, concentrated public opinion on the absurdity of certain phases of feudalism surviving in the age of reason. The publication of the *Contrat Social* sounded the death knell of the ancient régime; the new thought found expression in the simplified art of the late eighteenth century. In 1792, France was declared a Republic, a change to be followed in 1795 by a "Directory." In turn this led to the rise of the Consulate, and ultimately of the Empire. During this latter phase the system of government was greatly improved. The revolution had the effect of crushing the nobility and raising the status of the middle classes. In architecture energy was concentrated on public works. Thus was the period of improvements to roads and canals, and the building of schools and public institutions.

We can therefore attribute the following works as resulting from the different political influences:—

(a) Under Louis XIV, the Regency, and Louis XV, architecture found expression in palace building, churches, private mansions in town and country, and works of importance such as bridges, streets in Paris and other cities.

(b) Under Louis XVI, the architects found scope in designing smaller private palaces and town houses; the larger buildings include the Pantheon, Paris, and public works such as the Place Louis Quinze in Paris. Such fine buildings as the Monnaie, etc., etc., besides improvements at Compiègne and Fontainebleau, increase the total number of national works.

(c) Under Napoleon, there were many new works of public importance—such as the following:—

- (1) Remodelling of the Louvre.
- (2) Bridges and roads throughout France due to military necessity.
- (3) Rebuilding of the central portion of the city of Lyons; new streets in Paris such as the Rue de Rivoli.
- (4) The Arc de Triomphe, Paris.
- (5) Barracks, harbours and fortifications in all parts of France.

In order to appreciate the meaning of art in the eighteenth century we must revert to the middle period of the seventeenth century. When Louis XIV came to the throne, we see France on the threshold of maturity. The whole life of the country was about to expand. In war, in politics, in administration, in art and in literature, the same zest was apparent. For a time France was steering for the leadership of Europe. Fifty years later her dreams of conquest were realised to be futile. But France had gained the leadership in the arts. She had become the natural successor to Italy; and throughout



the eighteenth century she was the academy for the civilised world.

The conditions of society and the ordering of social life exercised a spell upon the works of the architects and artists. Encouragement, if not instruction, came from the aristocracy. The king maintained the feudal rigidity of class grading by concentrating society at Versailles.

The microcosm of the Court of Louis XIV in the year 1700 provides the key to the monarchical system of the early eighteenth century. We call to mind the huge palace of Versailles with its enormous facades; the formality of the gardens, shaped out of an almost infinite landscape; the water-works, aqueducts, fountains, reservoirs, and pumps, carried out at the expense of vast treasure and countless lives; the lesser palaces of the town of Versailles; the stables, the barracks, and the gardens. The buildings of the umbrageous setting formed a gigantic symbol of monarchy. The rays of the sun cast the whole conception into an imposing crown. Versailles was to prove the costliest item in the French regalia. In the darkling world outside the brilliance and the enchantment of the Court lurked the forces of discontent. We read of a peasantry inheriting mediæval oppression; we learn of bad roads; neglect, poverty, famine and incipient desolation. The aristocratic world of France had learnt to enjoy pomp and ceremony. Beauty was sought: there was a desire for the luxury of fine living. The king occupied the central terrace. He was almost a god. We picture the monarch with his periwig and red heeled shoes, supreme in the knowledge that his slightest wish was law. Society masqueraded amidst the giant vases by Antoine Coyse-Vox. Men and women of noble birth attended the plays given by moonlight in the grottoes devised by Le Nôtre. The hunts, the balls, and the assemblies gave satisfaction to the select. It is not difficult to conjure up the lights and shadows, the innumerable mirrors, the clusters of wax candles, and the torches held aloft by obsequious lackeys.

Classical architecture of the early eighteenth century could not have had a finer chance than at Versailles. From thence buildings in other parts of France were to be influenced in a thousand ways. The arts were decreed to be the prerogative of the king and his courtiers, but for the most part they were evolved by artists of middle-class origin, or men drawn from the very dregs of the people. In other words, the architects, sculptors, and painters were in the position of privileged servants. They were essential to the world of fashion, moving in it, as Jules Massart did, in a coach drawn by a team of six horses, yet having no claim to nobility.

These architects and artists were men with ideals, they were masters of technique. The noble patrons acclaimed their works, they had no desire to interfere or to make amateurish suggestions.

In society the drawing-room was the social centre; the modern theory of good manners, culture and breeding took on an elevated tone. The clarity and directness of the aristocratic ideal, artificial as it appears to present-day thought, found immediate expression in architecture and the kindred arts. The grandiose compositions, the geometrical plans, the academic elevations and rich details within a certain scope are flawless. In truth—art was so artificial as to be dissociated from the life of the common people. The anomaly inheres in the fact that the expert craftsmen among the people contributed to the excellence of the style. This is partly explained by the artistic sense of the French people, a legacy of the spirit which animated the art of the thirteenth century. Viewed dispassionately, the art of France at the beginning of the eighteenth century stands out as the basis of the later classical tradition. It was an art closely allied to contemporary literature, to the matured traditions of Italy, and to the special, if limited, culture of the nobility.

The strength of the classical tradition in the opening years of the eighteenth century is to be found in the imaginative handling of ancient themes. Later on this system became loose and petty. The rigid line gave way to the florescent. We speak of the intervening phase of 1715-65 as the period of the "Rocaille," which, being interpreted, can be said to be a pernickety form of the Italian Baroque. By the middle of the eighteenth century the classical tradition was again in process of change. As a movement it was far from ending. The second half of the eighteenth century can be summarised as a revival. For this reason the style commonly called "Louis Seize" is reminiscent of the more rigid forms of the style Louis Quatorze. Under such masters as Neuforge, De la Fosse, Gabriel, and Antoine the conventions of architecture became simpler. There ensued greater regard for plain wall surfaces and more precise classical detail. The influence and restraint of the contemporary English school began to be noticed. Almost imperceptibly the classic tradition prepared itself for the great event of the Revolution. In its latest phases the style was not starved, but its scope was reduced to simpler dimensions, the reasons for this being that the middle classes were participating in the rich things of life. Lesser houses were built in good taste, fine manners began to descend to the bourgeoisie. By the year 1789 the expression of French classical architecture had assumed a quiet uniformity suited to the smaller domestic buildings in towns, and to the new order of public buildings. The later work constituted an elegant style, not timid, not too precise, not too cold. Under the Directory the style found expression in refined furniture and objects of everyday use. After Napoleon's campaign in Egypt there ensued a wave of "Modernism," which at first was based on the classicity of Ancient Rome. The chief exponents were Percier et Fontaine, two architects who intermingled decorative motives from Egypt with those of Greece and Rome. This phase of French art could not avoid echoing the military adventures of the age. The ornaments were mainly trophies of war; the sculpture heroic; painting and portraiture matter of fact in convention. France had parted with periwigs and flowered silks, she now favoured classical costumes for women and uniforms for men. In literature can be traced influences similar to those pervading the other arts. The early period begins with the writings of Racine; then came the message of Rome and Greece. The whole attitude of society centred upon aristocracy. The teachings of the Roman Catholic Church were accepted at their academic value. Molière, holding the mirror to contemporary life, dominated the stage. The beginning of the change is discernible in the writings of Montesquieu, which were more suited to the drawing rooms of Paris than to the courtly atmosphere of Versailles. Montesquieu held French thought to the middle of the eighteenth century. Then followed Voltaire, who won fame as a tragic poet. Voltaire was profoundly influenced by his stay in England, and in time he began the series of writings which again changed French thought. It was, however, Rousseau who gave fresh originality to French literature. His theory was opposed to the sequential trend of French literary development. It was the burden of his teaching, "that far from pressing on the work of ordered civilisation we should try to forget civilisation and be natural instead."

Rousseau and Voltaire both died in 1778. The old order was to change again. Reason and humanity were to reign. The slogan, "Liberté, Égalité and Fraternité," was about to re-echo from one end of France to another. After the Revolution came the Romantic movement—there were very few great names in French literature until 1830—the reason being that the whole country suffered from the Napoleonic Wars.

The lecture was illustrated by lantern slides.



## NOTES FROM THE MINUTES OF THE COUNCIL.

3 February 1930.

## EXAMINATIONS.

## EXAMINATION FOR THE R.I.B.A. DIPLOMA IN TOWN PLANNING.

The Board reported the result as follows:—

Examined, 1 (previously Relegated); Passed, nil; Relegated, 1.

## R.I.B.A. FINAL EXAMINATION: THESIS REGULATIONS.

On the recommendation of the Board it was decided to amend the regulations relating to the submission of Theses for the Final Examination by adding a fourth section entitled "Town-Planning" to the list of subjects.

## LIST OF EXAMINATIONS RECOGNISED FOR THE PROBATIONERSHIP, R.I.B.A.

On the recommendation of the Board the Preliminary Examination of the Surveyors' Institution and the Preliminary Examination of the Institution of Civil Engineers were added to the list.

## THE R.I.B.A. INTERMEDIATE EXAMINATION.

*Subject A1: General History of Architecture.*—On the recommendation of the Board it was decided that the syllabus which is at present "A paper on the General History of Architecture" be amended to read as follows:

"A paper on the General History of Architecture up to and including the first quarter of the nineteenth century."

*R.I.B.A. Intermediate Examination Testimonies of Study.*—On the recommendation of the Board it was decided that the existing regulation for Section C, Measured Drawings, which is as follows:—

"Section C, Measured Drawings. Sheets 4 and 5, Measured Drawings of an existing building or portion of a building not of recent construction, to be selected by the candidate. His plottings and sketches are also to be submitted."

be amended to the effect that Section C, sheet 4, shall consist of "Measured Drawings of an existing building or portion of a building, not of recent construction, to be selected by the candidate. His plottings and sketches are also to be submitted. Care must be exercised to select a building of architectural merit, and such essentials as stone jointing, etc., should be clearly indicated. If the candidate is in doubt as to a suitable subject, he should communicate with the Secretary to the Board of Architectural Education."

"Sheet 5 shall consist of simple design based on the subject measured for Sheet 4; after that sheet has been approved by the Examiners."

*Acoustics and the R.I.B.A. Final Examination.*—On the recommendation of the Board it was decided that

- (1) Two out of the six subjects set annually as R.I.B.A. Problems in Design be subjects involving a simple acoustic treatment with calculations to give the appropriate time of reverberation. It will be compulsory for all candidates before applying for admission to the Final Examination to include in the four Testimonies of Study at least one of these two subjects.

- (2) A list of articles and books on the subject be issued with each list of R.I.B.A. Problems in Design to

guide candidates in obtaining the necessary information.

## SCHOOLS.

*School of Architecture, Armstrong College, Newcastle-upon-Tyne.*—On the recommendation of the Board it was decided that the recognition of the three years' Degree Course and the three years' Diploma Course for exemption from the R.I.B.A. Intermediate Examination be continued.

*Architectural Students and (a) Experience on Buildings in the Course of Erection and (b) Records of Historic Buildings.*—On the recommendation of the Board it was decided that:—

- (1) The Institute of Builders be invited to draw up lists of builders willing to give facilities to architectural students for studying building work.
- (2) The Surveys in London and elsewhere be requested to furnish the R.I.B.A. with lists of typical or essential buildings which should be recorded. It is suggested that types of local building in all parts of the country should be included.
- (3) These lists when furnished to the R.I.B.A. be sent to the Recognised Schools of Architecture.

## PRIZES.

*The Victory Scholarship, 1929.*—The Board reported that they had approved the suggestions for the expenditure of the Scholarship money made by Miss Betty Scott, Victory Scholar, 1929.

*Competition for New R.I.B.A. Building.*—On the recommendation of the Allied Societies' Conference it was decided that the competition for the new R.I.B.A. building be thrown open to the members of Allied Societies as well as the members of the R.I.B.A.

*The Institute of South African Architects and Registration.*—On the recommendation of the Registration Committee it was decided to make a grant of £100 to the Institute of South African Architects towards their expenses in securing the passing of the South African Architects' Registration Act.

*The Aerodromes Committee.*—It was decided to make a grant of £50 towards the cost of the work of the Aerodromes Committee.

*Presentation of Books to the Library by the Executors of the late Mr. Keith Young.*—The Council passed a resolution of thanks to the Executors of the late Mr. Keith Young for their generous gift of two interesting books to the Library.

## MEMBERSHIP.

*Election, 7 April 1930.*—Applications for membership were approved as follows:—

As Hon. Associates	2	applications
As Hon. Corresponding Members	2	"
As Fellows	18	"
As Associates	43	"

## REINSTATEMENT.

The following ex-members were reinstated:—

As Associates: C. I. Brooks, Frank G. Geary, W. J. Leahy.

As Licentiate: Ernest Pawley.

APPLICATIONS FOR ELECTION AS LICENTIATES UNDER SECTION III (f) OF THE SUPPLEMENTAL CHARTER OF 1925.

Five applications were approved.



**APPLICATION FOR TRANSFER TO RETIRED FELLOWSHIP.**  
The following member was transferred to the Retired Fellowship:—

John Bilson (elected Associate 1881, Fellow 1891), and the Council expressed their thanks to Mr. Bilson for his long and valued services to the Institute.

#### RESIGNATION.

The following resignation was accepted with regret:—  
William Finlayson [F.].

#### ELECTION OF STUDENTS R.I.B.A.

The following were elected as Students at the meeting of the Council held on 3 March 1930:—

- ALBERRY: JESSICA MARY, The Manor House, Farningham, Dartford, Kent.  
ARTHUR: GEORGE, Glentore, Airdrie, Scotland.  
BRIGGS: JOHN WILFRED, Greyhound Hotel, York Road, Leeds.  
BROWN: CLIFFORD WILLIAM, 86, Grove Hall Drive, Beeston, Leeds.  
DARROLL: WILLIAM WALTER, P.O. Box 120, Cape Town, South Africa.  
DRURY: EVELYN, "Homecroft," Crofton, Orpington, Kent.  
FELL: IAN BUCHAN, "Rosettevor," Point Road, Northwood, Sydney, Australia.  
FISH: JOHN, 951, St. James Street, Montreal, Canada.  
GORDON: HENRY VINCENT, Inglewood, Rickmansworth, Herts.  
GURNEY: HELEN VALBORG MARGARET, "Langton Lodge," Main Road, Muizenberg, South Africa.  
HARGRAVE: FRANK CLIFT, "Guyong," 1, Manning Road, Edgecliff, Sydney, Australia.  
HARRISON: DONALD DEX, Elm Royd, Moor Lane, Gomersal, near Leeds.  
HUTCHISON: ROBERT CHARLES, Braefoot, Liberton, Edinburgh.  
LUNN: NORMAN SYKES, 20, Occupation Road, Lindley, Huddersfield.  
MAJES: JOYCE, "Aalsmeer," Regent Street, Stoke-on-Trent.  
MILLS: EDNA MARY ISABEL, 80, Highdown Road, Hove, Sussex.  
MONTAGUE: ALBERT VICTOR, 69, Stainbeck Road, Chapel Allerton, Leeds.  
NEEDHAM: JOHN, 20, Little Lane, Bradford, Yorks.  
ORPEN: TERENCE FRANCIS MORIARTY, "Rosendal," Main Road, Rondebosch, Cape Town.  
PATERSON: HAMISH NOBLE, Tigh-an-Uillt, Inverness.  
PILICHOVSKI: ARNON VIVIAN, 7, Hill Road, St. John's Wood, London, N.W.  
ROTHWELL: FRANK LIONEL, 10, Drylands Road, London, N.8.  
WALKER: HERRIOT RAYMOND MYERSCOUGH, c/o Architectural Association, 34, Bedford Square, London, W.C.1.  
WEERASINGHE: OLIVER, "Somvasor," Havelock Road, Colombo, Ceylon.

#### THE R.I.B.A. ATHENS BURSARY, 1930.

The R.I.B.A. Bursary at the British School at Athens has been awarded to Mr. G. D. Gordon Hake, F.R.I.B.A., of the R.W.A. School of Architecture, Bristol. The Bursary is of the value of £100, and the bursar is required to spend a period of not less than four weeks in Greece, and at the conclusion of his tenure of the Bursary to present a report upon his visit.

It will be remembered that the Bursary has only recently been instituted by the Council of the R.I.B.A., and this is the first award that has been made. The award is made once a year, provided a suitable candidate is forthcoming,

to a member of the teaching staff of a School of Architecture recognised for exemption from the R.I.B.A. Examinations.

Mr. G. D. Gordon Hake, who is an Associate of the Royal West of England Academy, is the Headmaster of the R.W.A. School of Architecture, Bristol.

#### R.I.B.A. STATUTORY EXAMINATION FOR DISTRICT SURVEYOR AND THE EXAMINATION FOR BUILDING SURVEYOR.

The R.I.B.A. Statutory Examination for the Office of District Surveyor under the London Building Acts, and the examination for Building Surveyor under Local Authorities, will be held at the R.I.B.A., London, on 7, 8, and 9 May 1930.

The closing date for receiving applications for admission to the Examinations, accompanied by the fee of £3 5s., is 16 April 1930.

Full particulars of the Examinations and application forms can be obtained from the Secretary R.I.B.A.

## Notices

#### THE ELEVENTH GENERAL MEETING.

The Eleventh General Meeting (Ordinary) of the Session 1929-30 will be held on Monday, 7 April 1930, at 8 p.m., for the following purposes:—

To read the Minutes of the General Meeting (Ordinary) held on Monday, 17 March 1930; formally to admit members attending for the first time since their election.

To read the following Paper: "Antonio da San Gallo the Younger," by Mr. J. Hubert Worthington, O.B.E., M.A. [A.].

#### BUSINESS GENERAL MEETING.

At the conclusion of the above Ordinary General Meeting a Business General Meeting will be held for the following purposes:—

To proceed with the election of the candidates whose names were published in the JOURNAL for 8 March 1930, pp. 313-315.

#### EXHIBITION IN THE R.I.B.A. GALLERIES.

The Exhibition of the work of Dr. Percy Scott Worthington, M.A., F.S.A. [F], Royal Gold Medallist, 1930, will remain open, in conjunction with the Exhibition of Architects' Working Drawings, until Saturday, 29 March.

The Exhibition will be open between the hours of 10 a.m. and 8 p.m. (Saturdays, 10 a.m. to 5 p.m.).

#### R.I.B.A. ANNUAL DINNER, 1930.

The Annual Dinner will take place on Thursday, 15 May 1930, in the Guildhall, E.C. (by kind permission of the City Corporation). Full particulars will be issued to Members in due course.

A limited number of seats will be reserved in the Gallery of the Guildhall in order that Members and their friends who are unable to attend the Dinner may have an opportunity of hearing the speeches.

Arrangements are being made whereby it is hoped that Members and guests will be given an opportunity of visiting the Guildhall Library, Council Chambers, etc.



### BRITISH ARCHITECTS' CONFERENCE, NORWICH.

18 TO 21 JUNE 1930.

The annual conference of the Royal Institute of British Architects and its Allied Societies will take place at Norwich from 18 to 21 June 1930. The Norfolk and Norwich Association of Architects have in hand the preparation of a most attractive programme, and particulars will be issued in due course.

All members and students of the R.I.B.A. and all members of the Architectural Association and of the Allied Societies are cordially invited to attend the Conference.

It is expected that there will be a large attendance of Members from all parts of the country, and they are urgently requested to arrange for their hotel accommodation at the earliest possible dates so as to avoid the risk of disappointment. When communicating with Norwich hotels please mention R.I.B.A. Conference as a number of rooms have been specially reserved for Members.

The Executive Committee of the Conference have kindly furnished the following list of hotels and boarding houses, with charges:—

Place and Name.	Bed and Breakfast.	Full Board per day.
<b>HOTELS.</b>		
<i>Norwich—</i>		
Royal Hotel, Prince of Wales Rd. .. ..	10/-	21/6
Maids Head Hotel, Wen- sum St. .. ..	10/-	21/6
Bell Hotel, Orford Hill ..	8/6	—
Castle Hotel, Castle Meadow.. ..	8/-	16/-
Mortimers Hotel, St. Giles St. .. ..	7/6	12/6
<b>PRIVATE HOTELS AND BOARDING HOUSES.</b>		
<i>Norwich—</i>		
Lansdowne Hotel, Thorpe Rd. .. ..	10/-	15/-
Hesthote, Unthank Rd. ..	8/-	15/-
Evening Hill, Cambridge St. .. ..	8/6	12/6
Mrs. Nicholson, 114 Thorpe Rd. .. ..	8/6	12/-
Mrs. Johnson, Ivy Bank, Thorpe Rd. .. ..	6/6	12/-
Oxford House, St. An- drews .. ..	—	10/6
<b>HOTELS.</b>		
<i>Wroxham—</i>		
King's Head Hotel .. ..	10/6	20/6
Keys Hill Hotel .. ..	10/6	21/-
<i>Brundall—</i>		
Riverside Hotel .. ..	7/6	18/-
<i>Cromer—</i>		
Grand Hotel, West Parade .. ..	10/6	18/-
<i>St. Yarmouth—</i>		
Royal Hotel, Marine Parade .. ..	8/6	15/-

### GARAGE ACCOMMODATION.

The following garages are within a short distance of the Conference Headquarters.

	Tel. No.
Bussey & Sabberton Bros., Palace St. ..	1175
Delves Motors, Ltd., Prince of Wales Rd. ..	222
Mann Egerton Co., King St. ..	480
Norwich Motor Co., Recorder Rd. ..	1600
Maudes, Ltd., Prince of Wales Rd. ..	2223
Howes Garage, Chapel Field North ..	1260
Clarence Garage, Thorpe Rd. ..	197
Motor Parks are in All Saints Green, Cattle Market, St. Martin-at-Palace Plain, St. Andrew's Hall Plain, Tombland, Riverside Rd., Market Place.	

## Competitions

### ACCRINGTON: NEW POLICE AND FIRE STATIONS.

The Accrington Corporation invite architects to submit, in open competition, designs for new Police and Fire Stations.

Assessor: Mr. Herbert J. Rowse [F.].

Premiums: £250, £150 and £100.

Last day for receiving designs, 31 March 1930.

Conditions of the competition may be obtained on application to the Town Clerk, Town Hall, Accrington. Deposit £2 2s.

### CHELMSFORD: PUBLIC LIBRARY AND MUSEUM.

The Chelmsford Corporation invite architects to submit in open competition, designs for a New Public Library and Museum.

Assessor: Mr. H. V. Lanchester [F.].

Last day for receiving designs, 14 June 1930.

Conditions of the competition may be obtained on application to Mr. G. E. Barford, Town Clerk, Town Clerk's Office, Chelmsford. Deposit £1 1s.

### KINGSTON-ON-THAMES: PUBLIC BATHS.

The Kingston-on-Thames Corporation invite architects to submit in open competition, designs for the erection of public baths, with the use of one as a public hall.

Assessor: Mr. J. Ernest Franck [F.].

Premiums: £300, £200, £100 and £50.

Last day for receiving designs, 14 June 1930.

Conditions of the competition may be obtained on application (after 24 March 1930) to Mr. A. W. Forsdike, Town Clerk, Town Clerk's Office, Kingston-on-Thames. Deposit £1 1s.

### LIVERPOOL: PROPOSED PIER HEAD IMPROVEMENTS.

The Liverpool City Council propose to offer premiums of 1,000 guineas and 500 guineas in connection with a competition for the improvement of the amenities of the Pier Head. [Conditions are not yet available.]



## LUTON: TOWN HALL.

The Town Council of Luton invite architects to submit, in open competition, designs for a new Town Hall and Municipal Buildings, at a cost of £250,000.

Assessor: Sir A. Brumvell Thomas [F.].

Premiums: £500, £300, £200, and £100.

Last day for receiving designs, 31 July 1930.

Conditions of the competition may be obtained on application to Mr. W. Smith, Town Clerk, 2 Upper George Street, Luton. Deposit £2 2s.

## WEST HUMBERSTONE: LIBRARY.

The Leicester Corporation propose to invite local architects to submit, in competition, designs for a Library, to be erected at West Humberstone.

Assessor: Mr. Hugh Gold [F.].

Premiums: £75, £50 and £25.

[Conditions are not yet available.]

## Members' Column

## PARTNERSHIP WANTED.

A.R.I.B.A. is desirous of obtaining a partnership in a well established provincial Practice. Capital available.—Apply Box 1830, c/o the Secretary, R.I.B.A., 9, Conduit Street, London, W.1.

## PARTNERSHIP VACANT.

PARTNER REQUIRED in Provincial office near London. Energetic Associate with Recognised School training, and some London experience preferred, but older Architect having established connections, and with knowledge of taking off quantities might be considered.—Apply Box 9291, c/o the Secretary, R.I.B.A., 9, Conduit Street, London, W.1.

## FOR SALE.

Well-made polished pine double Elephant plan case, dust-proof. Five long and two short drawers, pigeon holes above. Also 10 ft. drawing table, three drawers.—Apply to J. Rawlison [A.], 18, Adam Street, Adelphi, W.C.

## Minutes XI

SESSION 1929-1930.

At the Tenth General Meeting (Ordinary) of the Session, 1929-1930, held on Monday, 17 March 1930, at 8.30 p.m.

Sir Banister Fletcher, F.S.A., President, in the Chair.

The attendance book was signed by 38 Fellows (including 17 Members of Council), 19 Associates (including 2 Members of Council), 1 Licentiate, 1 Hon. Fellow, 2 Hon. Associates, and a very large number of visitors.

The Minutes of the Ordinary General Meeting held on 3 March 1930, having been published in the JOURNAL, were taken as read, confirmed, and signed as correct.

The Hon. Secretary announced the demise of:—

Joshua Gunton, elected Fellow 1899.

George Salway Nicol, elected Associate 1905, Fellow 1918.

Joseph Oswald, elected Fellow 1891.

Mr. Oswald was a Past President of the Northern Architectural Association and represented that body on the R.I.B.A. Council from 1894 to 1896.

Frank Thomas Baggallay, elected Associate 1887, Fellow 1888, transferred to Class of Retired Fellows, 1929.

Mr. Baggallay was a Past President of the Architectural Association and represented that body on the R.I.B.A. Council in 1891-92. He was a member of Council from 1899 to 1904, and also served for some years on the Art and Literature Standing Committees, and the Board of Examiners and Prizes and Studentships Committee.

William Billington Walton, transferred to Fellowship 1925.

Henry Dearden, elected Associate 1894.

George Collins, elected Licentiate 1912.

Anton Hendrik Scholte, elected Licentiate 1912.

And it was Resolved that the regrets of the Institute for their loss be entered on the Minutes and that a message of sympathy and condolence be conveyed to their relatives.

The following Members attending for the first time since their election were formally admitted by the President:—

Mr. G. W. Lord [F.].

Mr. Denis Poulton [A.].

The President delivered an address on the presentation of the Royal Gold Medal to Dr. Percy Scott Worthington, M.A. Oxon., F.S.A., F.R.I.B.A. Having been invested with the Medal, Dr. Percy Worthington expressed his thanks for the honour conferred upon him and delivered a brief address.

Lord Crawford, Sir Henry Miers, Mr. Francis Jones, Mr. P. M. Oliver, Mr. E. D. Simon and Dr. P. S. Allen also spoke.

The proceedings closed at 9.30 p.m.

## ARCHITECTS' BENEVOLENT SOCIETY

(Insurance Department).

## HOUSE PURCHASE SCHEME

(for property in Great Britain only).

The Society is able, through the services of a leading Assurance Office, to assist an Architect (or his client) in securing the capital for the purchase of a house for his own occupation, on the following terms:—

## AMOUNT OF LOAN.

Property value exceeding £666, but not exceeding £2,500, 75 per cent. of the value.

Property value exceeding £2,500, but not exceeding £4,500, 66½ per cent. of the value.

The value of the property is that certified by the Surveyor employed by the Office.

## RATE OF INTEREST

In respect of loans not exceeding £2,000 5½ per cent. gross.

" " in excess of " 5½ " "

## REPAYMENT.

By means of an Endowment Assurance which discharges the loan at the end of 15 or 20 years, or at the earlier death of the borrower.

## SPECIAL CONCESSION TO ARCHITECTS.

In the case of houses in course of erection, it has been arranged that, provided the Plan and Specification have been approved by the Surveyor acting for the Office, and the amount of the loan agreed upon, and subject to the house being completed in accordance therewith, ONE HALF of the loan will be advanced on a certificate from the Office's Surveyor that the walls of the house are erected and the roof on and covered in.

NOTE.—In 1928, over £20,000 was loaned to architects under this scheme, and as a result over £100 was handed to the Benevolent Fund.

If a quotation is required, kindly send details of your age next birthday, approximate value of house and its exact situation, to the Secretary Architects' Benevolent Society, 9 Conduit Street, London, W.

## R.I.B.A. JOURNAL.

DATES OF PUBLICATION.—1930.—12, 26 April: 10, 24 May: 7, 21 June: 12 July: 9 August: 20 September: 18 October.



# Journal of the Royal Institute of British Architects

THIRD SERIES

VOL. XXXVII. No. 11

12 APRIL 1930

## Contents for 12 April 1930

	Page
DR. PERCY SCOTT WORTHINGTON, M.A. Oxon., F.S.A., F.R.I.B.A., Royal Gold Medallist 1930 .. .. .	<i>Frontispiece</i>
THE ROYAL GOLD MEDAL : PRESENTATION TO DR. PERCY SCOTT WORTHINGTON, M.A. Oxon., F.S.A., F.R.I.B.A., ..	359
ITALIAN MASTERS AND OTHER DESIGNERS: By Major Hubert C. Collette, O.B.E., F.S.A. [F.] .. .. .	360
OBITUARY :	
THE LATE FRANK THOMAS BAGGALLAY: By Walter Millard [R.F.] .. .. .	379
DAMP PENETRATION .. .. .	380
STANDARDS OF ADEQUACY OF DAYLIGHT ILLUMINATION AND REASONABLE PENETRATION .. .. .	382
THE EFFECT OF CORROSION OF IRON BOND: By G. Reginald Farrow [F.] .. .. .	382
HENRY POOLE, R.A. .. .. .	382
ALLIED SOCIETIES :	
THE ROYAL INSTITUTE OF THE ARCHITECTS OF IRELAND .. .. .	383
ULSTER SOCIETY OF ARCHITECTS .. .. .	383
DEVON AND CORNWALL ARCHITECTURAL SOCIETY .. .. .	384
MODEL OF THE HOLY SEPULCHRE .. .. .	385
MR. D. EVERETT WAID .. .. .	385
R.I.B.A. PROBATIONERS .. .. .	385
NEW BUILDING MATERIALS AND PREPARATIONS .. .. .	386
NOTICES .. .. .	387
QUERIES AND REPLIES .. .. .	389
COMPETITIONS .. .. .	390
MEMBERS' COLUMN .. .. .	391
MINUTES .. .. .	391
A.B.S. SCHEME OF INSURANCE .. .. .	392





Dr. Percy Scott Worthington, M.A. Oxon., F.S.A., F.R.I.B.A.  
Royal Gold Medalist, 1936





## The Royal Gold Medal

PRESENTATION TO MR. PERCY SCOTT WORTHINGTON.  
Hon. Litt.D., M.A.Oxon., F.S.A., F.R.I.B.A.

(At the Royal Institute of British Architects, on Monday, 17 March 1930.)

THE Royal Gold Medal of the Royal Institute of British Architects was presented to Mr. Percy Scott Worthington, M.A.Oxon., Hon. Litt.D., F.S.A., F.R.I.B.A., in the rooms of the Institute on Monday, 17 March 1930, the President, Sir Banister Fletcher, F.S.A., in the chair. In making the presentation the President said:

"We cannot forget that this is St. Patrick's Day, and that reminds me that, as your President, I have recently had the duty and pleasure of visiting Ireland, where I have seen again the fine public buildings both in Belfast and Dublin to which members of our Institute have largely contributed.

I have also just returned from Liverpool and there have renewed my acquaintance with the noble buildings, civic and ecclesiastical, of that great commercial centre. There again members of the R.I.B.A. have, through many years, left their enduring record in stone.

But, above all, to-day is Manchester's day, and that enterprising city does not lag behind in demonstrating in her buildings her devotion to our mother art. To-day we delight to honour her distinguished son, Dr. Percy Worthington.

Percy Scott Worthington has had a distinguished career. He was educated at Clifton College and Corpus Christi College, Oxford, where he took his degree and afterwards studied at the Royal Academy Schools and at University College, London, where he gained the Donaldson Medal, and later he won the R.I.B.A. Essay Medal.

He was articled to his late father Thomas Worthington, and after a time spent in the office of John MacVicar Anderson, then President of the R.I.B.A., he joined his father in partnership in his native city of Manchester.

Percy Worthington has served his profession, his city, and his country in many ways, and as Vice-President, member of the Council, and of the Literature Standing Committee, he has done good work for this Institute. The Manchester Society of Architects owes him much as a past President, as Chairman of the Education Committee, and as one of the strongest supporters of the University School of Architecture in the days of its formation.

For many years he has been a member of the Art Gallery Committee and of the Council of the Whitworth Art Gallery. He is a past President of the Royal Manchester Institution, a member



of the Diocesan Advisory Committee, and also Chairman of the Civic Advisory Committee. He is a Fellow of the Society of Antiquaries, and has been a member of the Royal Fine Art Commission. It will be seen, therefore, that he has given his services with public-spirited generosity.

In the years before the war, when the best trend of architectural thought had grown weary of the irregularities that succeeded the Gothic revival, Percy Worthington, with his extensive and varied practice and his personal influence, became one of the leaders in the North of the return to a well-ordered classicism. His mastery of the spirit of Gothic, as seen in the Arlosh Hall of Manchester College, Oxford, and the picturesqueness of many of his earlier country houses, shows his evolution towards the Grand Manner. His pleasant domestic designs are to be seen in many parts of England, and his charming detail is displayed in church fittings and war memorials, while he has been reverent in the repair of ancient buildings.

Of his Manchester work, the little Globe Insurance Office, the dignified Arts Building and central block of Ashburne Hall, all led up to his recent masterpiece, the Masonic Temple. The superbly conceived plan of this building, the restrained use of material, together with the majesty of the "Hall of Memory," show a sense of proportion, an insistence on good craftsmanship, and a certainty of touch that proclaim the master. The Victoria University of Manchester conferred on him the degree of Doctor of Letters, *Honoris Causa*, in 1919, in recognition of the fine buildings it owed to him. Before long two more buildings in his native city will add to his laurels—the new Manchester Grammar School, in which Mr. Francis Jones is associated with him, and the Nurses' Home for the Manchester Royal Infirmary.

These varied achievements bear witness to a tireless energy, a devotion to his calling and a striving for perfection, without which no distinction is possible in our exacting profession. In selecting him as the first English architect practising in the Provinces to receive the highest distinction which is in the power of this Institute, with the King's consent, to bestow, we recognise the way in which he has upheld the highest ideals of his art in this northern city of commerce and industry.

Percy Worthington is modest to a fault and does not seek publicity, and it is in enduring buildings

that his work is recorded, work of which we here and now acknowledge the value by the presentation of this Royal Gold Medal for Architecture, and it gives me, as your President, the greatest of pleasure and satisfaction to place round his neck this symbol of success."

In accepting the Medal DR. WORTHINGTON said: "Mr. President, my lord, ladies and gentlemen, I knew, Sir, that I might hear some kind things to-night, but I could not have believed that you could have said them so very kindly, and I really do not know how to find words in which adequately to thank you for them. It is a source of great pride to the profession to receive this Medal from His Majesty the King, and I do not suppose there is any prouder man in the country than the recipient of it from his fellow-architects. I remember a distinguished scientist who was awarded the Medal of the Royal Society who received it with the reasons for its award. He wrote back that he was quite aware that he was the one man who ought to receive the Medal, but he disagreed with the reasons. After a lengthy correspondence he found that, as they say in the North, he "could not get without it," and he deposited it in a museum. Well, Sir, I am still at a loss to know why you have been good enough to confer this great honour on me; but I shall accept the verdict of my fellow-architects, and I shall *not* deposit it in a museum.

I confess that I have been thinking of this evening with some dread, because I am not very good at getting on my legs. A friend of mine, divining my state of mind, was good enough to send me a speech ready-made. He said it was one which he and others had used with success, and suggested that I should interpolate anything which I might think was particularly appropriate for this evening. However, its wit would have given me away, and any interpolations of mine would have spoilt its unity. So I decided I had better stand on my own legs, poor though they were. But it was very thoughtful of him to have done it, and he was very frank about the reasons. He said to me, "You are no orator, as Sir Banister is; what will you say when he compares you to Solomon with his Temple, or Cheops with his Pyramid, or Sir Christopher Wren, who built everything in London except Charing Cross Bridge." He said, "You will be as a sheep before the shearers and will only bleat." I don't know why "bleat"; I should have preferred to stick to the text. And he spoke of a still small voice which bade me beware of the Ides of March. Well, the Ides of March have come, and I think his prophecy has not been fulfilled. You, Sir, have not compared me with any of the excellent gentlemen he mentioned, and I trust his remark about bleating is equally wrong. As to oratory, he is right. I really do not know how to express myself. I sup-





RADBROOKE PROVER, CHESHIRE. By Percy Scott Worthington  
Perspective by W. Walcot



MANCHESTER UNIVERSITY, FACULTY OF ARTS BUILDING. By Percy Scott Worthington  
Perspective by W. Walcot





MENTON COLLEGE, OXFORD: ALL SOULS HALL  
By Percy Scott Worthington.



pose that the pith of the acknowledgment of every recipient of the Royal Gold Medal is the same: it is the greatest honour that an architect can have conferred upon him, and it is given by a jury whose verdict he would most wish to have. The roll of Royal Gold Medalists has been a very notable one, up to this time, and—after this aberration of 1930—I have no doubt it will go on and be as notable as ever. But it is a source of great pleasure and pride to be classed with so distinguished a band, and it fills one with, perhaps, natural pride, and with a determination, in however humble a way, not to let the standard down.

It is difficult to believe—if I may be a little reminiscent—that anybody has had a happier studentship of architecture, which has lasted now for nearly fifty years, or been happier in his clients, in his work and in those with whom he has been associated in carrying it out. For many years I carried on practice alone, but it was begun in association with my father, who was a very inspiring and scholarly architect, and who worked for this Institute strenuously for many years, and was its Vice-president. And in these later years I have had most wonderful help from my brother, whom most of you know. With any reasonable fortune he will see an architectural centenary, and my son is there to carry on. And then some of us have had the pleasure of collaboration with other architects. I have had that pleasure, and among those I should like to mention particularly is my friend Francis Jones, with whom it has been a privilege and an honour to work. And there is also a loyal staff, without which no architect can possibly manage to carry on any amount of work.

I cannot sit down without renewing the expression of the gratitude which I feel from the bottom of my heart, and assuring you that the recollection of this evening will be the most treasured memory of my life."

SIR HENRY MIERS, D.Sc., F.R.S.: I have had the advantage of living many years in Manchester, and I have been closely associated with the University which owes so much to Dr. Worthington's skilful and impressive work. I need mention only three buildings, with which I have been personally familiar. One was in process of completion when I went to Manchester; another was built during my period there; and the third is, I think, approaching completion at the present time. All those buildings are characterised by what Manchester principally lacks, at any rate in the district where these buildings are situated, that is, something of the nobility and tradition which count for so much in a university. Everyone will agree that to no body more than a university is it important to have dignified buildings. Nowhere is the character of the buildings of greater influence on those who inhabit them than at a university. One has only to bear in mind what the buildings of Oxford and Cambridge have been to many generations of students.

When I first went to Manchester the Arts Building, to which you, Sir, have referred, was in process of construction; and that was characterised by a charm and a dignified grace which contributed enormously to the dignity of the University itself. It was also singularly well adapted—and that is not always the case—to the varied purposes for which it is to be used. The professors and students who use the building have felt themselves to be in a place which was excellently suited to all their needs and requirements.

And the same is true of the second building, which I have watched during its process of growth. You also have alluded, Sir, to Ashburne Hall, an extraordinarily elegant and charming structure, which serves a different purpose. The first building was for the educational work of the University; the second for the home life of the women students. Nothing could be better designed and better adapted to their needs, or better suited to fill them with a sense of responsibility and that home-life sense of unity which is often lacking in a university where students are widely distributed and come from many homes of various types. It filled all the needs which may be required by undergraduate life.

The third building, which I hope is now approaching completion but which I have not seen, though as a Governor I was familiar with its plans, designed by Dr. Worthington and Mr. Jones, is the new Manchester Grammar School. That, again, is a building which, judging by the plans, will be not only an attractive but also a dignified and impressive structure, and one excellently adapted for the needs of the school. So there are three different buildings, each distinguished by grace of construction, utility of design, and a general adaptation to the purposes for which they are needed. Those who are familiar with Manchester will realise what that means in that city. Though there are many people here and there is present a large contingent from Manchester who can speak of it more forcibly than I can, none can admire more fervently than I do the extraordinary work which Dr. Worthington has done in Manchester and the success which has been achieved by his endeavours.

MR. FRANCIS JONES [F.]: I have had the privilege of working in the same office as Dr. Worthington for some fifteen years, and, in some cases, of collaborating with him. Collaborating with Dr. Worthington, I may tell you, is a very easy matter; Dr. Worthington does the work and the collaborator stands by and admires. These circumstances have enabled me to see a real architect, and I say that with the greatest sincerity and from the bottom of my heart. Dr. Worthington is a real architect, who spares himself nothing in his endeavour to obtain absolutely the best results, as Sir Henry Miers has said, not only in the execution of his designs—which might be vanity—but also in the details



and for the comfort of the people who are going to use the building. No detail is too small to demand Dr. always sees the thing through to the very best of his ability.



MASONIC TEMPLE, MANCHESTER: THE MEMORIAL HALL  
By Percy Scott Worthington

Worthington's most meticulous care. Even in portions of the building where architectural interests may be entirely absent, Dr. Worthington never shirks, he

There are other things that a Gold Medal is for, I think, besides the mere execution of work, that is, for the good to the profession and the good of the citizens



in the city in which the work is done. There are very few men, I think, who can have given more time, especially busy men, to public work than Dr. Worthington has done. The President has already told you of many of the public works with which Dr. Worthington is as-

flagged. During the whole of that time he has had both the admiration and the whole-hearted support of his Committee, and a whole-hearted enthusiasm from the students. That may be a small thing, perhaps, the Education Committee of a provincial society, but it is a



CENTRAL BLOCK, ASHBURNE HALL, MANCHESTER UNIVERSITY  
By Percy Scott Worthington and J. Hubert Worthington.

sociated. I have had the privilege of serving on some of those Committees; and not only does he hold the highest ideals himself, but he incites others to hold them too. I should like particularly to mention his work on the Manchester Education in Architecture Committee and the Manchester Society of Architects. He has been their Chairman for twenty years, or something like that time, and that in itself, I think, is a very great sacrifice for so busy a man as Dr. Worthington. But in all those twenty years his interest and enthusiasm have never

great thing to have had so eminent a man giving so much of his time to it.

I should like, in conclusion, to say that Dr. Worthington has been worth while. He has served his generation well, and his generation is the better for having had him. I feel quite sure that after his generation his spirit will still live amongst those who have, in the first instance, drawn their inspiration from him. I feel that no better award could have been made, and Manchester is very proud of having one of its members, the



Lord Mayor I can judge as to what he has done in the way of public work in Manchester. I pay my tribute to the public spirit of the Manchester architects, led by Mr. Worthington and Mr. Francis Jones. When I was Lord Mayor they came along and helped us in many ways, and they have since then formed themselves into an organisation, and they are advising committees of the Corporation, I am ashamed to say,

I have much in my heart but very little in my mouth. I feel, however, as the representative of Dr. Worthington's College, that his College will get a great deal of reflected lustre from the admiration which has been shown to him to-day. It is just that thought which has given me the courage to respond to this entirely unexpected summons from you, Sir. It has been very educative for me to come and see so much of Dr.



HOUSES AT ALDERLEY EDGE, CHESHIRE

By Percy Scott Worthington

without remuneration. Voluntarily they are doing what they can to help the City Council to make of Manchester a more beautiful place. And, as ex-Lord Mayor, I should like, in the name of Manchester, to say how much I appreciate the opportunity of being here to-day, and to pay my tribute of sincere thanks to Percy Worthington for the honour which, through him, has been done to Manchester to-night.

Dr. P. S. ALLEN (President, Corpus Christi College, Oxford): I confess that this is a very sudden attack, no word of which reached me beforehand; and

Worthington's work. I regret to say that though, officially, I am a Governor of the great School in Manchester which was founded by Hugh Oldham, my acquaintance with that city is much less than I could have wished. But examples of Dr. Worthington's architecture which line the walls here to-night are an encouragement to anyone who does not know Manchester to make a rapid acquaintance with that remarkably interesting town, and to see the beauties which it is endeavouring to accumulate for itself, and which will remove any reproach there may have been in the past as to its character.



## Italian Masters and Other Designers

BY MAJOR HUBERT C. CORLETTE, O.B.E., F.S.A. [F].



VIEW OF VERONA. By Bellotto

LAST year the Archbishops of Canterbury and of York issued, in their official capacity, a pastoral appeal to England. They spoke of signs of the need for reconsidering foundations and traditions. The great exhibition of Italian mastership in the arts of design may possibly be regarded as being in itself a response to this appeal for it has most definitely directed our attention to problems of great design and to the use, and possibly at times abuse, of tradition. And writing as I do by invitation on this amazing collection, an architect may be excused if he dwells on the need, the practical need, of more beauty among us in every possible direction.

But there can be no beauty anywhere in Church or State or in smaller things without a knowledge of, and intelligent regard for, the principles of design. And any plan or structure to an architect is, and must always be, a largely conceived, fully developed, architectural conception or scheme of building.

It must have unity, but not necessarily uniformity, in its being, and it can be based on one foundation only. This does not mean that I shall attempt any theological discussion. It is not my province. But matters of fact, narrative traditions in design, and the meaning, significance, of various subjects used in design and decoration may necessarily lead me to try and suggest some ideas. And on the way it will be possible to look at experience and make perhaps one or two discoveries that might be useful.

The assembly of Italian masters at Burlington House was a remarkable gathering of able men. They spoke to us as a veritable parliament of skilled craftsmanship. And they did so without a word. They were silent while we admired their ability to speak so well. All they did tell us was told with a freshness of inimitable power, with variety, delicate subtlety. There was a truth of style in all their oratory because it was founded on a technical accuracy of language, traditional development, personal experiment, imaginative perception. All these are the natural result of a clear grip of each single problem as something that calls for mental exertion and physical dexterity for its true performance as a definite piece of work to be done.

Such works as these are not the result of a fanciful and easy genius at play with native talent in an undeveloped stage of its growth. They are the product of serious effort, and sound knowledge, with a background of a few centuries of toil, in workshops where men took a real delight in rivalry, seeking after some new perfection in which they might express every beauty of form, of colour, of line, and of a structurally conceived, accurately considered composition.

Experiment made discovery possible. The mistakes, no doubt, of many youthful efforts which we do not now see led to the avoidance of error. And the sure and certain knowledge of how a thing is right or wrong in design became evident to minds and hands that worked



in unison till they were able to use a technical maturity, equalled perhaps in other schools in their own particular way, but never, perhaps, surpassed.

With much gratitude we acknowledge the value to civilisation, in Europe, particularly in England, of this contribution by the Italian nation and people and, we must add, the Roman section of the Church, to those humanising, civilising, influences which are so real a need in life. For there surely can be no kind of doubt in our minds to-day that the production, the possession, the visible evidence of that indefinable inherent quality we call beauty is really a necessity of existence. Things beautiful are not luxuries. They minister to, and satisfy, a true practical need in human life. They may be a part of that humanism that some suppose to be a discovery of the Italian Renaissance during the fifteenth and sixteenth centuries. No doubt there was something in the nature of a rediscovery at that time. But we need to realise that this was a second effort towards a Renaissance in Europe. And it developed quite certainly out of efforts that preceded it some four centuries earlier. And this earlier revival was due as much to a French, English, and Irish activity of mind and spirit as to that of Italy, to Rome, or to the Eastern centre of influence at Constantinople.

Behind the element of the humanities seen in these revivals there was also a deeper, if often a perverted, influence that had its origin, if not always its continuance, in what may be called the divinities of life. For it is true that without these last the best of all that a fine humanism can devise is but of a secondary quality. And it is probably true that much of the appeal in the works we have lately seen at Burlington House is due to the many sincere attempts to express, by the forms and methods of the arts, that finer quality that is a sanction to, and a refiner of, all human effort. That is not to say we need admit that there is a thing we may call religious art. All the arts, singly or combined as a great architectural conception, may teach some truth of idea, of thought. They may also equally express, without a word, errors in idea as well as errors in the method or the manner of expressing it. It is within the province of what we call art to deal with method and manner. For art, the word and the thing, stripped of the vague sentiment attached to its use, or separated from the debasement that merely makes a trade advertisement of the word for a sometimes questionable profit, is nothing but work.

Fine art is fine work. No more. An artificer is one who works, one who is an artist, capable of fine device, fine artifice, a good craftsman in his own peculiar métier. And we may see in the works of these master-craftsmen of Italy how magisterial is the ability they possessed, what masters they were in good workmanship. A magisterial is a master capacity. Some scorn the idea of mastership to-day and also the name of master. But what is it? Is it not only another name for ministry, one who ministers to, administers for, his fellows in the particular occupation that he calls his own job? It is the interaction of variety in work, the inter-dependence of men, of one man on another, or on others, in order to get things done that must or should be done. In mediæval, and also in later, days each man followed his own mystery, his own craft. His mystery was his occupation, his ministry. English

dramatic art arose out of the Mystery Plays. And these were the early efforts in drama of men who were artificers. They were so named not only because the subject of the play might represent some mystery of another sort but also because they were written or acted by workmen players. Let us try to establish this fact. It may be useful for it seems to give a deeper sanction to all effort, all kinds of work. Every magister is a master, a magistrate in some degree; a minister who is in a position to administer some one need a community of men requires. This Roman magister became in Old French a *mestier*, one with, as it became later, a special métier of his own. This, in English, became his mystery, or his mistery, his ministry, his job. The term applied equally to the King, and to his ministers of State; to any bishop or archbishop, and the other ministers in what is called the ministry; and to any skilled artificer, painter, sculptor or architect. For the architect was merely another name for the chief of the technicians, chief of the artificers, an indication of office, function, ministry. It mattered nothing whether he was in this capacity personally qualified as a painter, a mason, or a carpenter. He was architect, as a prelate might be *archi-episcopal*, one responsible for the general direction and oversight of some work where a co-ordination of effort became necessary in the effective realisation of a larger aim. In architecture the suffix merely meant the result achieved by this combined effort.

That a man's mystery, or mistery, was his occupation is clear from several uses of the word by Shakespeare. And it was Edward III who ordered confusion among the artificers of his day to be settled by directing that "all artificers and people of mysteries shall each choose his own mystery (or mistery) before next Candlemas, and that, having so chosen it, he shall henceforth use no other."

Macbeth's question "Canst thou minister to a mind diseased" was not only a problem put for solution before the medical world of his time on the relation between physical and mental reactions, or medical psychology. But it also showed that in his mind, as in that of his contemporaries, a medical occupation, or any other, was something more, something higher, than a means of livelihood, it was a ministry. And so that great profession still retains this thought in the daily use it makes of its opportunities.

Is it not right then to look upon the works of these great Italian Masters as the result of their ministry? The secrets of their mystery were their own, and used with such consummate skill. Many of the technical secrets by which they worked we may never know. But the result of their use of them we see and enjoy to-day. They ministered, centuries ago, to our present need. And in some degree it may be true they do minister now to a mind of Europe that is, in the arts, diseased, uneasy, lacking some settled convictions to be their guide.

The western section of the Church, before it became divided into other parties during the sixteenth or seventeenth centuries, realised the value of the strong support that could be given by all the arts of design to those who desired to inform the minds of men. Since then their power has been largely neglected. But, though the craftsmen in all the arts could be called upon to do work and



did do much work that represented particular ideas, it is surely a mistake to suppose that there can really be such things as religious art or ecclesiastical architecture.

The people who know and use the arts of design to make fine things for religious purposes, and those who see and admire them, are, or may be, religiously minded. But the things themselves are not religious. They are doubtless set apart, dedicated, for a reverent use in sacred precincts, as they should be. They may not become a substitute for the mind or spirit they are meant to aid in men. And that they are an aid, who can or will deny, unless he is dead to all that the arts can do or tell. Their business it certainly is to speak, but as silent oracles, like the stars. For, as I shall try to show, the stars do declare something, though their voice is not heard. They are not mere shining lights though they are "patines of bright gold." "True as gold," is a proverbial phrase. That is what it means in the structure of the Tabernacle and the Temple. And it is probably for this reason that gold is so much used as a background for so many schemes of decoration by the Italian and all other schools of designers in the representation of Scriptural subjects as well as for its colour value. The work, for instance, by Simone Martini is a fine example of this use and tradition.

The technique of architects, painters, or sculptors is not theology. And though the Scriptures give some quite precise evidence of the existence of a large design and purpose in their main theme, as well as a consistent development of it in their allusions, they are no more a text-book of so-called "religious art" than they are of physical science. Nor do they pretend to be either of these. They do, however, show that some aspects of truth cannot be known unless revealed, as there are other aspects which it is our business to discover by research, experimental and physical; intellectual, moral and spiritual; and also by the experience and knowledge to be gained by a study of the problems of plan, of structure, and of design. And so we may readily recognise that the detailed descriptions of the Tabernacle structure and the decorations of the Temple, in their actual or symbolical aspects, are not in any sense a text-book on building, except for a house not made with hands. We have heard in modern days of such labels and, indeed, of persons who profess either to teach or to produce what some will call "ecclesiastical art" without any serious or sufficient professional qualifications. Savonarola was more circumspect, more wise, more sane. For he, by his influence, supported the foundation of schools of art in Florence towards the end of the fifteenth century. He realised their value, and we see in London now, four hundred years later, that it was well worth while, both in the interests of humanity and of divinity, to encourage those arts by giving work to those who were trained in and qualified to minister by them to the needs of civilisation.

Those schools in Tuscany, as in every other virile centre in Italy, or anywhere in Europe, were the workshops of their day and time. They were not art schools, or schools of art, in any modern sense. But they were conducted by working masters whose pupils were their apprentices. The former taught and the latter learnt by a practical effort to satisfy the needs of their own day;

busy moderns making things that others required. And if we would emulate their skill we need follow the only kind of common sense method that can produce those who will be the old masters of this age to the next generation. That method is simply to discover and employ the many able men we have among us now.

It is evident that the exhibition, taken as a whole, was really a historic review not only of the Italian Renaissance. And its full significance cannot be seen unless in some way we try to understand a little of the influence of that movement on the wider area of Europe. For the historic value of these records is clear. It is not necessary to read into the various works things of which they do not speak. The real difficulty is to decide how much or how little we should note of what they say. We are invited by them to extract something at least of what the arts as a whole can tell us of the ideas, tendencies, aspirations, or beliefs of the period. Perhaps we may take the beautiful manuscript copy of *Aristotle's Logic*, by Francesco D'Antonio, as a suggestion of one way by which Greek thought was being reconsidered. It was designed and produced during the sixteenth century and has been lent by the Laurentian Library in Florence. No doubt the *Logic* was of value. But it is an interesting point to note that the logical theories and practical warnings of Aristotle's *Politics* did not suffice to prevent the development of such political principles as those propounded in *The Prince*, by Machiavelli. He was a son of Florence and had been actively engaged in the work of the Republic by which it was governed for nearly twenty years till the Medici returned in 1512, and dismissed him when their local despotism was again in power. This ardent republican theorist then became a converted advocate, like some of our modern examples. He wrote *The Prince* for the benefit of the Medici and dedicated it to one of the family. But unlike some others, he secured no political profit by this adventure. It proved a useful text-book to later members of the same family when Catherine, and after her, Marie de Medici controlled the destinies of France.

During this short republican experiment at the end of the fifteenth century in Florence Savonarola had been a prominent figure. But his effort to revive an old political system by the aid of modern theory had little lasting value compared with the principles of our English Constitution, the foundations of which had been prepared some three hundred years earlier. And these principles still survive, though through the centuries they have been menaced by the agents of a Medici influence, whether civil or ecclesiastical, as well as by the political descendants of Machiavelli. And it may be observed that the balances of power, the checks provided against the growth of a single despotism, or the tyranny of a few or of many, discoverable in the principles by which our English constitutional scheme has been sustained, against much attack, seem unknown to Aristotle's analytical review. In the English Constitution there is plan and structure based on fixed principles of stability; flexible in their application to the needs of a large aim, to be satisfied by design.

There is, perhaps, a tendency in some directions to exaggerate the value or the effect of the influence of the





THE CRUCIFIXION. By Andrea Mantegna

Italians in the arts. And in attributing this salutary influence to them they are regarded as if they were a strictly Latin stock. No doubt the Latin, or shall we say Roman, element is necessarily strong. But it should not be forgotten that Rome fell before the onset of the Gothic invasion in the fourth and fifth centuries. Gothic chiefs, as kings, ruled all Italy for several centuries, and the whole of North Italy is still Lombardy, the tract conquered, settled, peopled and governed by the Lombards. In the South, Sicily was a Norman stronghold for about a century. And in the Eastern part of the Empire Justinian himself was only a Roman by adoption. By birth and race he was directly descended from a long line of Gothic ancestors. And in his day there was a large permanent population in and near Constantinople that was not Roman or Latin, not Greek but of a pure Gothic or Teutonic stock, especially in the region of Adrianople.

Then again, this northern influence was at work all over Italy and the Eastern Empire during the period of the Crusades. One result was the occupation and rule of Baldwin of Flanders in Constantinople for some fifty years in the thirteenth century. Another result in Italy on the arts was the discovery and use of the poetic value of Italian as a modern language by Dante and his successors. This language, Latin no doubt in many of its elements and structure, is one permanent result of the Gothic occupation of Roman territory. And there can be no doubt that it was from Dante, from Petrarch and Boccaccio that the Italian painters and sculptors of the later, the second, Renaissance obtained many ideas.

But as we see they drew much of their inspiration from Scripture as well as from a strictly Roman or Greek literature then being recovered from the oblivion of what had been somewhat Dark Ages. These Dark Ages were not what we now call the Middle Ages or Mediæval days. This was a term invented by Italian patriots with something of a desire to turn the mind of their modern admirers back from the northern and, to them, barbarian influences on Italian thought. They wished to be, and to become again, a more definitely Roman people following more rigidly a Latin or Roman tradition in art, in life and in policy. It was an effort that arose perhaps partly out of a desire to revive or to rebuild a new form of the Empire out of the wreck of what had fallen to Saracenic conquerors in the middle of the fifteenth century that this Roman revivalism began. It was based rather like our own Gothic revival on a keen archaeological search, in their case, for Roman precedent or Greek evidence by which to support a somewhat new outlook in the arts, in literature, in philosophy, and in policy. But with all this desire it was impossible to remove from the mind of Europe, and the traditions of men in speech, and in the daily occupations of the artistic craftsmen in brick, in stone or in paint, all they had ever learnt. Much, it is true, was removed by the aid of archaeological scholarship. But things that have been bred in tradition will linger long in the minds of men as if they were parts of the very bones of their existence. It was from the wealth and enterprise of the Venetians, the Florentines and the men of Genoa aided by the ecclesiastical centre of Rome



that the especially Italian Renaissance of the fourteenth and fifteenth centuries derived its impetus. Perhaps the strongest force behind all this effort was in Tuscany, in Florence, and in the Medici family. For their influence was not exercised alone as bankers, merchants, financiers, or local politicians within the precincts of their paternal city on the Arno. It was extended by them as patrons of the arts and of learning, as archaeologists, collecting everything of interest or value from any quarter of the world. It was also exercised by them not merely as a Ducal but as a Papal family from the beginning of the sixteenth till early in the seventeenth century. And it was used in France as a Royal power in the person of Catherine de Medici, the Queen of Henri II, and again by Marie de Medici, the Queen of Henri IV. The aim of Marie was to make of France another Northern Tuscany, to convert Paris into a Florentine resort. Richelieu was really her minister; and his successor was his own nominee, the Italian Mazarin. Marie was Regent when Louis XIV, her grandson, as a minor, became king and she continued to govern by the aid of Mazarin. Her daughter, Henrietta Maria, became the Queen of Charles I of England and so carried the Italian and the Medici influence into England. This influence was extended in France during the reign of Louis XIV. For it was under his sovereignty that so much activity in all the arts was going on. Through him and his regime both Italian and French influence was strong in England. Charles II was in the pay of France and was largely the servant of Parisian control. Sir Christopher Wren, as the architect of the new St.

Paul's Cathedral under Charles II, had to accept what he called the "geist," the spirit, of the age and go to Paris to learn how the French, by the aid of their Italian masters, were being instructed in the rudiments of a Roman art at the cost of a strictly Gallic tradition. Paris was then a centre of feverish activity in the arts. But though the Italian influence was so strong that Bernini in Paris could pose, and talk, and act, as if he was a sort of demi-god, yet a northern influence was also felt from the Dutch and the Flemish schools, not only in France and England but also in Italy. And there developed at least one nationally distinct personality in the midst of all these foreign reactions in France. For by Watteau there was developed a point of view, a technique of medium, of design, of colour sense, and of the application of light to illuminate his pictorial conceptions, that was something quite fresh, quite new, among those who were his French contemporaries. He was, it is true, in his earlier days, much impressed by his study of the works of the great Italians. But, as with Rembrandt, this was but a passing phase though it had a lasting value in his only too short career, which closed early in the eighteenth century. Poussin owed much to Italy in every way in his ideas and methods of design. But his colour schemes, though rich and fine in composition, were thin in value compared with those of a Florentine or Venetian origin. Rubens was one who was too busy always to be able to do such things so well as his Italian instructors. He worked, as we can see, in the great canvases of the Rubens room at the Louvre, executed for



THE RESURRECTION. By Andrea Mantegna



Marie de Medici, with a facility and rapidity of execution and a largeness of scale equal to that of Tintoretto in, say, the Scuola di San Rocco, near the Frari Church in Venice. But again it is evident his colour and his execution never showed the depths of colour and strength of tone of the Italian schools.

One other result of foreign influences of Italian origin in France may perhaps be noted. For it has affected so largely all later French work in the fields of design through what is now the Academy of the Fine Arts in Paris. Whether this apparent domination over the earlier native, and very distinctly national, French tendencies in the arts was permanently beneficial none but the French themselves could say with any certainty. But to those who try to see what are the results of political or ecclesiastical developments in their relation to the arts by which a people may express their own ideals of life, or their conceptions of beauty in technical skill, the establishment of the French Academy of Arts as a department of Government is at least a question of historic interest. Colbert, as the Minister responsible for its administration under Louis XIV, was but carrying on the policy of Mazarin. It involved an official continuation of Italian influences over the French atmosphere in all things where the arts are concerned. It need not necessarily imply that all academic institutions are undesirable as some have supposed. But it does suggest the inquiry how far national or local tendencies in art should be guided by official sanctions, especially if there is any disposition to suppress the natural vitality and growth of national abilities. For it is necessary to realise that part of the value to the arts, and to civilisation in Europe, of the Italian vitality, the vitality of the many local schools of Italy is due to the fact that they were fostered, developed, and nurtured by a local freedom from too much external control, and under systems of local enterprise and government that encourage a healthy rivalry and a pride in local achievement. It was this which kept alive the desire to live within a city that was itself a thing of beauty in its streets and squares or surroundings, and to possess public buildings or private dwellings which the whole community, and each individual in it, might enjoy as a part of their own possessions.

But in spite of every influence of one school or nationality of painters, architects or sculptors, one on another, there always seems to be in each national school or group a distinctive quality and character of its own. It is not a matter that can be well defined or given any exact description. Nevertheless, there is this apparent difference: It is in painting one of flair, of *esprit*, of colour sense, as well as of personal and native character in the sitter or subject whether we look for it in Italy, in France, in Germany, in the Netherlands, in Spain or in England. In architecture it is seen in the use of various materials, and a characteristic general form, in technical detail in the proportions of parts and in general scale. In sculpture it is in a selection of type, in choice of subject, in the technique of design and of craftsmanship. The arts may be cosmopolitan in their appeal, their influence, their value. Things beautiful may be and are presentations of beauty wherever we find or can see them. But we can see from their special character if they are of the east or of the west; European or Asiatic, Chinese,

Egyptian, Greek, Byzantine, Roman, or Gothic. And in the works of the more recent moderns this difference or distinction is still, if rather less, apparent.

It would be interesting to pursue some of the political consequences of this wide Italian influence that did not begin but was continued during the second Renaissance period in Europe. But that is not our present quest. Nor is it admissible now to enquire how far this same influence was due to the Counter-Reformation policy that was engaging Italian minds both before and after the Council of Trent. But it seems clear that we cannot really consider the bearings of the Italian revival in the arts in its complete implications unless we do examine how far it was affected, or carried by a desire to support the political as well as the ecclesiastical ideas of the period. It is, for instance, impossible to divide the thoughts of men into entirely separate compartments when we realise that over nearly the whole of Europe the control of education, both in its elementary and advanced stages, had become almost entirely the business of the Jesuit instructors after perhaps the latter half of the sixteenth century. Architecture, and especially the building of Churches, became largely a part of this educational scheme for it developed so as to produce what became known later on by some as the Jesuit style. It was a derivation, much run to riot, from what had been advocated as the only true sort of architecture by the text books compiled by Palladio in Venice and by Vignola in Rome. The latter had been architect to Julius II whose successor was Leo X, a Medici. We may, therefore, perhaps assume that in this, if in no other more direct way, he doubtless felt the influence of these Florentines.

It is to Barozzi da Vignola that we look as the designer of the Church of the Jesuits in Rome. And from him we get doubtless the name for a somewhat florid type of the Roman antiquarian revival known later as the Baroque. Palladio, too, was responsible for the Church of the Capuchins in Venice, a fraternity that was in later days very active in France.

We have been following the course of Italian influence in the arts in certain directions to show how great and how powerful it had been. We had felt it quite clearly in England in ways, and in specific examples, well-known to every architect having an elementary knowledge of the historical or archaeological aspects of his own great practical and structural fine art. It is an art that depends for the realisation of its best aims upon the active co-operation of the trained skill, the highest abilities, of a whole community. It requires the willing aid of the co-ordinated resources not alone of a great building industry but of almost every kind of factory, whether it is worked by machinery or by hand, to produce what minds can conceive and make. But it also needs the collaboration of those who practice and live by every other kind of art or fine craftsmanship in painting, sculpture, wood or metal work, brick or stone.

And to speak now only of the value of Italian influences in this way on English results it would be possible to name many examples. But in all those instances it is evident that though we have looked to Latin precedent for much valuable assistance we have always translated it into some definitely English interpretation of its terms.



Sometimes this was done by Italian workmen acting here under English direction and influence; sometimes by English designers who had reaped for themselves some benefit from the study of Roman or Italian examples. This influence has prevailed for several centuries. But it has never yet succeeded in quite supplanting a persistent national, and racial, element in our island traditions. The decorative painting on the vault and ceiling of St. Alban's Abbey seems to be derived in some of its ideas and methods from those on the nave vault of S. Anastasia in Verona. The latter were executed before the middle of the fifteenth century as a dated inscription [1437] on the work itself shows. The only remaining portion of the fine decorations that once enriched the vaults of Chichester Cathedral are now those in the Lady Chapel. They seem to bear some affinity with the earlier work in Verona and at S. Albans. But they were done nearly a century later by Theodore Bernardi in the early years of the reign of Henry VIII. About this same time the Italian decorators were busy at Albi and Torrigiano at Westminster.

Of the various works that were to be seen at Burlington House little need be said in detail in these notes. So much has already been published as an aid to those who might need some guidance in their desire to discover special things of interest they might otherwise have missed among so many attractions. It is of use, however, to draw attention to the fact that such a very large number of the paintings exhibited were executed in a tempera, not an oil medium. Some were the result of both combined in one work. The ground in many examples is wood panel, in others linen or canvas. Each medium and each ground has had its value in contributing some particular quality to the finished result. There is one example of sculpture in wood of a late Gothic type more French or German in character than Italian. It is catalogued as Tuscan. But it looks as if it might perhaps be Lombardic in origin. Like much of the Gothic sculpture in wood or stone it has been prepared with gesso for completion in colour. It still retains some little colour but much of it seems to be of later date than the figure itself. For examples, of what could be done by the addition of colour decoration to sculpture in the late Gothic period no better place could be found than Albi Cathedral in Southern France. There was much of it to be seen and most, if not all, of it is still in its original condition and it occupies the architectural situation for which it was designed.

The bronzes of David by Donatello and Verocchio, and the one in marble by Michelangelo, are certainly fine and well known examples. But, like much isolated sculpture, they lose in sculptural value by being placed on the top of exhibition pegs in the form of slight pedestals. All sculpture is more effective from every point of view if it stands in some relation to an architectural setting to show its relative scale or to emphasise the decorative elements in its delicate subtleties of form. This idea of frame or architectural position is also of so much importance to any painting whether it is primarily decorative or necessarily pictorial. Many of the pictures exhibited have been reproduced for illustration purposes. But when this is done without the frames in which they are placed they are often incomplete. With

most, as they hung on the walls, the frame is really part of the total composition. And so many of these frames are, to an architect, a fine study in design and decorative detail, subordinate but complementary to the pictures which they surround.

It is not possible for an architect, or perhaps for anyone else who may try to write about this exhibition as a whole, to do more than speak generally about its contents or their significance. We may ask ourselves what it suggests to



PORTRAIT OF GIOVANNA TORNABUONI  
By Ghirlandaio

us as likely to be of lasting value to those who have seen the collection. And we might reply to our own question in many different ways. There can be little doubt that it should permanently affect the standard of taste, as it is called, and increase the power of appreciating the difference between work that shows supreme ability and that which possesses only second rate qualities. It is evident from the intensely keen desire to examine these examples of the Italian genius that their influence should react widely in many ways. At times it has become quite impossible to get near the walls on which the works are shown because of the masses of people in every gallery.



The galleries have, in fact, been often packed solid with people from end to end. And it was evident that persons of every sort and condition were thoroughly absorbed by what they were able to see. The spectacle of these crowds suggested that the interest in such things was greater than it used to be, and that the general level of the standard of education, which enabled them to enjoy works of the kind, was indeed different from what some may have supposed it to be. Pictures, no doubt, will always attract notice where there is evidence of a skilled use of good colour, or a presentation of subjects that have a deep attraction for so many minds as in those shown. But the interest seems to have been aroused as much by the limited number of examples of sculpture, tapestry, embroidery, majolica, glass, ivories or metal-work. And the large and very varied collection of wonderful drawings has rightly claimed the close critical enjoyment of everyone who has seen them. Of etching or engraving little or nothing was shown. It would have been an additional interest to see something of the kind by, say Marcantonio Raimondi or Niccolò Beatrix-cetto. Bookbindings, illuminated manuscripts, were represented by a few very fine examples. And in the limited selection of printed books it was possible to examine the beauty of the founders' type used, the spacing of the lines and the arrangement of the letterpress in relation to the whole page and its margins. It is some satisfaction to realise that modern English book production in all these particulars is really comparable with much that was done by the great masters in past times.

We saw in this collection some fine evidence of what the arts had done during the earlier period of Renaissance, and long before the attempt was made to make revival mean, in some ways, an effort to return to Latin or Greek tradition for suggestions. In the painters' craft of decorative design the movement of revival had been largely continuous from the twelfth or thirteenth centuries onwards till elements of feebleness or decay began to appear in the seventeenth century. In sculpture and in architecture the break in the steady course of traditional development was more marked. In architecture this was particularly to be seen. In sculpture, as in decorative painting, because it was a living craft, the suggestions of archaeology had less of a dragging influence. It had in itself an impetus towards changes in character that made it become a record of thought and of achievement in design that truly belonged to the period during which it was produced. The architecture of the Italian Renaissance also developed a quality and character by which we may easily see the age of its execution. Yet it is, I think, true that some of the architectural effort of the later Renaissance tried too much to live by the material suggested to it by the monuments of Imperial Rome. This tendency sapped the vitality of a vigorous freshness out of structural design in building. A similar tendency led other sticklers for precedent to fail in their attempt, by the Gothic revival, to go back four centuries or so. It seems to be the same in all the arts. They thrive or they decay together. With them vigour or sterility is general. But a true architectural revival that has in it some real qualities of thought, out of which design in plan or structure may be developed, seems to carry with

it, almost as a necessary consequence, a revival of all the other artistic crafts. The latter develop later perhaps. But it is quite certain there can be no really fine architecture, no adequate revival of it as a structural fine art, unless the other arts are available to provide the only means by which its rarer qualities of expression can be realised.

The evidence of the existence of a very fully developed power in the decorative aspects of drawing and design, composition and fine colour schemes of richness and great value was to be seen in the illuminated pages of the several missals exhibited. Some of these were described as of the eleventh, twelfth and thirteenth centuries. There was one of exceptional beauty catalogued as of Paduan style. It is said that the manuscript was executed in Austria and that the miniatures are Italian. If Paduan and Italian they are Lombardic and therefore the product of a Gothic influence, whether Paduan or Austrian. In composition and in drawing there are traces of Byzantine or eastern influence and Greek feeling. And this evidence of the wide effect of various influences is seen and is to be expected for many fairly obvious reasons. The Crusades, feudal principles, and the fact that there was very little of a fixed political boundary for separate nationalities yet defined helped to make this extension of influence possible and probable. The work, for instance, by Simone Martini, lent by the Royal Museum of Antwerp, might easily be compared for likeness in method and manner with the Wilton Diptych now in the National Gallery. Yet the Antwerp panels are classed as Italian probably executed in Avignon. And the Wilton ones are declared by some to be French. The latter seem quite as much English as French. And why not so? For half France was under English jurisdiction at the date to which they are assigned, and evidently belong. But it is necessary to recollect that until the end of the Hundred Years War France was not a French kingdom in the sense that it has since become. It seems, therefore, a little unnecessary to try to label all things too precisely as to their date or place of origin and nationality in the earlier periods. Nor is it necessary to speak so much of this or that as a style of some kind or other. Each work, if it is worthy at all, has, or should have, a distinctive style or manner in the same way as we seek for and find indications of the presence or absence of a literary style in writers who possess some personality and powers of thought that are their own. Some of these suggestions will be evident to those who have an intimate knowledge of the curious resemblances of character to be seen, not as copies or reproductions, but rather as the result of recollections, and traditional experiences, in the missals of the earlier periods, or in mediæval colour decoration generally.

If we except some of the single portraits of later date and some of the few landscapes nearly all the painted works were of a decorative character in colour and design. Many were executed to take their place in a subordinate position as part of a larger architectural scheme. And they have been designed in scale to fit in with the part they were to play in that scheme. Some were made expressly to occupy a place on the walls of large or of small rooms without much defined architectural arrange-



ment except that provided by the area of a wall or the length, breadth, and height of the room. And it is probably certain that none of them were produced with the idea that one day they might be assembled among many hundreds of others in public galleries that have become a sort of picture warehouse. In such an assembly it is inevitable that scale will clash with scale and colour with colour all along the walls, in length and height, where the works follow each other in an ordered succession of architectural, or pictorial and decorative, disorder. Such a condition of things is inevitable, if regrettable, because not otherwise can they be exhibited or seen under the modern conditions of to-day. The eye almost recoils, and the mind almost rebels, against the demand of so rapid a change of scene and point of view required to enable it to become prepared for so much variety, such as this implies. One solution of the difficulty is surely to be found by placing works of great scale all in large galleries together and those of a smaller character in smaller rooms. To some extent this was done at Burlington House. For nearly all the drawings and smaller objects were placed together in separate galleries. It is a principle of arrangement that could be carried further in a future exhibition with advantage.

The catalogue describes the great portrait group by Titian as being a presentation of members of A Venetian Family "in the act of worship on the steps of an Altar." It is most certainly a wonderful achievement in design, in composition and technical skill; and its value as a colour scheme is undoubtedly fine though less strictly decorative in an architectural sense than some of the other, and earlier, masters had conceived. But we may be excused perhaps if we doubt the accuracy of the statement that there is any "act of worship" involved. If a somewhat odious comparison may be permitted it suggests a reference to the more recent expositions of profanity in the illustrated daily papers that show how advertising press photographers are now seeking pictorial copy by operating during a divine service to get snapshots of persons at their prayers. It is a procedure suggested possibly by some recent cartoons from Moscow, to the origin of which Mr. Bernard Partridge drew attention in *Punch* by his cartoon called "The New Law."

Among the portraits there is one attributed to Titian which is of interest because he was one of the masters of portraiture in the later manner and also because it represents a man whose character and personal history is curiously interesting. It is of Ignatius Loyola. The history and influence of the Society founded by him and by Cardinal Caraffa, better known as Pope Paul IV, is too well understood by students of the later Renaissance to need more than a casual reference in these notes. But it was responsible for much that was not always satisfactory in its relations to the arts, especially to architecture. Macaulay, in one of his Essays, is severely critical of its activity in other directions. And as a result the members of the Society were expelled from nearly every country in Europe during the eighteenth century, and it was then formally condemned and suppressed by the ecclesiastical authorities in Rome.

This portrait is of some historic interest because it draws our attention to the father of Inigo Jones who had

been named Ignatius after Loyola. And as all architects know it was Inigo Jones who was responsible, perhaps more than any other man, for the remarkable and, historically speaking, sudden introduction of what were known as the "frontispiece" methods of applying Italian elements of design to English buildings. As Surveyor to the King, and painter of the theatrical properties required for the masques under Charles I, he no doubt felt something of the Medici influence through the Queen, Henrietta Maria, a daughter of Marie de Medici. Mr. Gotch has shown recently that his activity as an architect was less than had been supposed. And it is evident that his position at Court told against him in the political and ecclesiastical difficulties of the time.

There is one remarkable example of the influence of the Italian schools of decorative painters in Europe which is not, I think, so well known as it deserves to be. It is perhaps one of the greatest decorative schemes in the largeness of its area, the boldness of its scale, and the value of its architectural power, that was carried to completion by any of the Italian migratory groups of painters. Who was personally responsible for the vast decorative design on the vault of Albi cathedral I am not able to say. But, compared with it, all else I know sinks into insignificance. It is clearly, quite evidently, Italian in character. And it was executed during the early years of the sixteenth century. Its extent may be realised from the fact that it covers completely from end to end the one vast vaulted nave of this building. The internal length of it is about 300 feet by some 60 feet wide.

Much might be said of the transmission from one to another of the experience of several generations of a family tradition in the arts. We see its value in a marked degree among the Bellinis. And we also see what a very wide influence it could be when we realise that this one family was responsible for exercising a direct influence on so many of those whose names are conspicuous as having done great things in the arts over a long period of the Italian revival. It may be well to name some of the men who owed so much to Jacopo Bellini and his two sons Gentile and Giovanni. Among them were Giorgione, Mantegna, Cariani, Bassati, Carpaccio, Catena, Cima, Foppa, Liberale, del Piombo, Solario, and lastly Titian. Surely a notable record and a most remarkable school of achievement.

Among the various works to be seen there were many of particular interest from an architectural point of view. All are interesting in this way if we regard them as decorative parts of an architectural scheme or as necessary features required in one way or another to add to the dignity and beauty of some buildings. Many of the paintings depend largely upon architectural elements as important essentials in their pictorial and decorative quality. Of these some examples may be noted in the Annunciation by Fra Filippo Lippi; the Miracle of S. Bernardino, said to be by Fiorenzo Di Lorenzo, and another by the same hand of the Birth of S. Bernardino. One of the finest of all is the Wedding Feast by Botticelli, which is, unfortunately, one only of a set of four panels that are really a single narrative scheme by design but are now in different collections. The Holy Family, by Annibale Caracci, is another of a more severe and simple



character but beautifully decorative in composition and in colour.

Among the pictures of architectural subjects there were those by Canaletto of London from Richmond House, and Whitehall; another of S. Michele and Murano, and one of the Grand Canal, Venice. The Island Church, in Venice, is by Guardi and also a very fine interior on a large scale of the Sala del Andito in the Ducal Palace,

as interesting as in the design of its architectural qualities.

There is one aspect of this exhibition that no observer can neglect who attempts to understand either its attractions or its significance. It is a fact that stated at every visitor to the galleries. To say nothing of it is impossible, to ignore it would suggest either ignorance or blindness. This fact is that possibly nine hundred out of about a thousand of the exhibits have their origin in ideas that



[Photograph by Anderson, Rome]

MADONNA AND CHILD, By Botticelli

The last shows in detail the design of the room with its large doorways, panelling, cornice, and ceiling beams, all well considered and broadly treated from the painter's point of view and designed with a good sense of architectural scale. The Villa Gazzada near Varese, by Bellotto, a nephew of Canaletto, was a delightful study of a small country house with its gateway, doorway, roofs and out-houses, all well shown and well placed on an admirable site, and in surroundings in which it quite easily and naturally takes its place. In colour and in technique it is

have always been of the deepest import to every man who thinks at all and tries to see beyond the surface of things. I speak of those many works which are illustrations of the text of the Scriptures. As it has been the chief provinces of the arts in every region of the world to illustrate, by their powers of design, what men's strongest convictions are it is not possible to avoid the responsibility of making some reference to the subjects about which these works speak so clearly.

No architect, painter or sculptor, no craftsman



designer, who works in, or lives by, any of the allied arts, can avoid contact with some part of the history and the traditions presented by the evidences of earlier skill. To an architect, design and structure, as the result of mind in action, is to be seen in the whole cosmos. The universe as an architectural conception is a problem in design, a structural phenomenon. Not only utilitarian but also decorative. Structure may be, in fact is and should be, as significant in one way as decoration is in another. But it is decoration alone that lends itself to a narrative form of expression. This we see in sculpture, in painting, and in any kind of design that is subordinate to the main structural elements of some larger whole. Donatello's David, for instance, is a very vivid narrative of events. It represents the revival of a forgotten industry in bronze, a successful experiment, a fine achievement. But it does more. It indicates a principle and reveals a purpose, for it reminds us of a hope that is an aim. Right is to oppose the claim of might; freedom is to subdue tyranny. Pictorially the same subject appears in a work of the early seventeenth century by Strozzi, and there is another, by Pesellino, executed probably about the middle of the fifteenth century. It shows in one long decorative design five different episodes of David's life treated like a continuous frieze nearly six feet long and seventeen inches high.

The David, by Verrocchio, sufficiently tells by its design who it is the figure represents. And it is not necessary to commend its value as a great sculptural success to those who know his remarkable Colleoni monument in Venice. But the David by Michelangelo, fine as it may be, unfinished as it is, does not show by its design that it is a David. It may be, and, no doubt is, intended to represent him as tradition asserts. But there is little or nothing in it as a work to indicate the fact.

Some modern sculpture has this same defect by which

*(To be continued.)*

### THE LATE FRANK THOMAS BAGGALLAY [F.].

A member of all but fifty years' standing, and of still longer connection with the Institute as a Student, has passed away within a month of the publication of the JOURNAL of his transference to the Retired Fellowship. Beginning as an Ashpitel Prize Winner, Frank Baggallay has stood forth from first to last an Institute man. Yet before his election as an Associate he had already made a name for himself in architecture by carrying off in 1879 the Gold Medal from the Architectural School of the Royal Academy, an incident of course unrecorded in our Kalendar. The impression made by the winning design is reflected in the words it called forth from the President, Sir Frederick Leighton, that "he had rarely seen so remarkable a design or so good an architectural drawing."

It must have been in the Academy School, where Baggallay was a year ahead of me, that we first met. Along with Leonard Stokes, Howard Ince, and others there, he took a hand in bringing into existence "The Angles," our little company of choice spirits

it lacks completion. It is often fine in the execution of its modelled forms and is labelled with a name. But in reality it frequently has no narrative value because it indicates no positive decorative idea beyond mere beauty of composition or dexterity in design. It may perhaps be said with truth that all sculpture that lives, and is to live, has a narrative as well as a decorative value, a meaning beyond, and in alliance with, its forms whether these represent action or repose. The small Warrior on Horseback by Leonardo da Vinci is a quite remarkable example of bronze vitality in design and conception having a subtly finished executive perfection. It seems to tell a story of physical courage and power and may have suggested an idea to G. F. Watts in his fine scheme known as Physical Energy. The value of this narrative element in design is perhaps more readily seen in, more easily provided by, painting as a means of decoration than by sculpture. And of it there were several examples shown. Whether these are strictly schemes of decorative treatment primarily, or landscapes; portrait groups like those by Titian; or representations of one individual alone, such as the fine Giovanna Tornabuoni by Ghirlandaio, their descriptive value is very clear. They show us something of the character of those personalities who were prominent figures in the life of their day. Or they preserve for us a view of homely or official events in some highly imaginative setting. Custom and tradition, fiction or beliefs, all are there. And among them many incidents of saintly life are recorded. The latter we expect naturally to find among so many works when most of them are presentations of religious subjects. But since it is the ordinary everyday business of anyone to be or to become one of the saints in thought or action we do not necessarily look for them in pictures, lists or kalendars. They are not made by public recognitions but by private life. They are an innumerable company mostly unknown.

concerning whom I have made mention on a former occasion.

When it came to "setting-up" days, I found shelter in a spare room Baggallay had to let next to his own, facing the Westminster clock tower. From that time on unbroken friendship kept us in close touch, and on a stray occasion or two we collaborated professionally. For instance, in the mid-eighties, he got me to join with him in conducting an atelier for architectural students. This venture, which ran for a year or two until the Architectural Association opened its Day School, originated in a suggestion made by Professor Roger Smith, who saw the need of something of the sort to go on with.

So far as I remember, Baggallay's first commission was a timber-framed private residence, for which he not only made the necessary drawings but elected to take out the quantities as well. His last executed work was completed only just before Christmas, 1929. It was a case of roof repairs to Merton Church, Surrey,



an ancient structure with the care of which he, a parishioner, had been entrusted for some years past. His final visit to this work, when to a gathering of the congregation he gave an account of what had been done, proved to be his last appearance out of doors.

For some half-century he had carried on as a general practitioner in architecture, characteristically with most scrupulous regard to all the attendant responsibility entailed. He took his practice in no light-hearted mood, but very seriously. In fact, although the rôle of practising architect well brought out one side of Frank Baggallay, he was endowed with a mind that compassed much besides. Whether in journalistic work on *The Builder*, under the editorship of H. H. Statham; or as President of the Architectural Association; as a member of Council and of the Board of Examiners at the Institute, or on the Court of the Merchant Taylors' Company, where he was elected to take his turn as Master, he gave proof of all-round capacity and high trustworthiness. A less well-known symptom of natural ability peeps out in his display of youthful precocity by his interpreting for himself Egyptian hieroglyphics in the British Museum—during the luncheon hour—whilst yet serving articles in Mr. Thos. Henry Wyatt's office near by. A fondness for working out chess problems was another bit of serious by-play, but his greatest work done by way of relaxation must be his translation of Vitruvius. How one wishes that this may yet be published!

WALTER MILLARD [R.F.]

A friend writes:—

Having had the privilege of reading the above notes from the kindly pen of Walter Millard, it seems opportune to comment further upon a matter which is there mentioned very briefly, owing to the inherent modesty of the author.

The Atelier, in Heddon Street, Regent Street, which paved the way for important innovations in architects' training, was started by Frank Baggallay jointly with Walter Millard. It was often said that such was the enthusiasm, the promised hour would extend into a long afternoon spent among the young students.

After a short run, their venture ceased, only to be extended by Leonard Stokes, Frank Baggallay, and later by Howard Seth-Smith, at the Architectural Association during their successive years of office as President.

In 1885, Mr. Baggallay read a paper before the R.I.B.A. on "The Use of Flint in Suffolk," generously illustrated by drawings prepared from his own sketches. His keenness with regard to masonry was maintained, and in 1910 Baggallay wrote the section on "Stonework and Walling," Longman's "Building Construction," edited by Professor F. M. Simpson, a Fellow,

Baggallay lived in Beckenham until his marriage and designed the Parish Hall of St. Mary's, Shortlands, together with the reredos of the Church in which his parents worshipped.

His only son, seriously injured during the Great War, lost his life, with others, in the appalling Irish tragedy of 1920. Widely-felt sympathy was then, as now, extended to the wife and daughters. F. H.

The works of Mr. Baggallay include a private residence, at Liss, Hants; church, at Grange Road, Bermondsey (in partnership with another architect); baths, pump room, etc., at Harrogate, Yorks., for the Corporation; village church, at Grambschütz bei Narnslau, Silesia, for Count Henkel von Donnersmarck; (in partnership with W. Millard); industrial schools and cottage homes at Stifford, Essex, for Public Authority; Thoby Hall (reconditioned), Essex; houses at Shenley (additions, etc.), Herts; in Epping Forest, for Captain Angus; in Sussex (Staplefield Place), Godalming (Northanger); and Essex ("The Beeches," Rawreth). He was also responsible for the restoration of the baptistery in St. Peter Mancroft, Norwich; Merton Church, Surrey (repairs and new vestries), for the Vicar and Churchwardens.

#### DAMP PENETRATION.

[The following communication with regard to troubles from damp penetration has been received from the Department of Scientific and Industrial Research. As the subject is of great interest to architects we print it below for the information of members.]

The weather at the latter end of last year was quite abnormal for this country. This fact is reflected in the huge number of enquiries in connexion with internal efflorescence and damp penetration which we have received during the past month or two. There appears to have been another abnormal period about four or five years ago and many structures which gave trouble then and at the end of 1929 were free from trouble in the interim period. However, owing to the damage, direct and indirect, which results from these abnormal periods, it is, we think, certainly incumbent upon architects and builders to consider carefully what modification in design, construction and materials can be introduced to improve the weather-resistance of buildings. In this connexion one might make the broad generalisation that, in small house construction at any rate, using traditional walling materials, there is an excuse of strength and an insufficiency of weather protection; in other words, the governing factor in deciding the thickness of traditional external walling material is the minimum which will keep out the wet.

The factors operative when damp penetrates to the internal plaster on an external wall are (1) those due to wind acting upon water passing over the external face; and (2) the capillary properties of the materials of construction. These conditions are, incidentally, reproduced in the standard test of the Building Research Station for absorption and permeability. In this test a head of 20 cms. of water (equivalent to the worst possible driving rain con-



ditions) is applied to the specimen and the rate of entry of water measured. What usually happens with walling materials is a very high rate of absorption at first, due to the head of water plus capillary attraction; as frictional resistance in the pores increases with depth of penetration, the rate is gradually slowed up. In order that water shall flow out over the interior surface of the wall a pressure greater than the "capillary head" must be exerted. At smaller pressures the liquid surfaces formed at the orifices of the capillaries will merely become distorted assuming a convex shape on account of which forces are developed which will oppose the flow of water. In a porous material the limiting pressure which the larger pores can sustain through distortion of the liquid surfaces may easily be exceeded by the wind pressure; as a result water will flow through the larger pores and will wet the whole internal surface of the wall. The curved surfaces which oppose the capillary flow through the smaller pores will then merge in a continuous liquid film and no capillary forces, apart from frictional forces, will oppose the penetration of the material.

An ordinary immersion porosity test alone gives no indication of the weather resistance. The results of our own tests are only comparative, and in giving opinions on the weather resisting properties of materials tested we have to do so by comparing the results with those obtained for materials which are generally accepted as sufficiently weather-resisting in practice.

Now an important point is that in common bricks and, in fact, all bricks with the exception of a few semi-vitreous engineering bricks which are absolutely impermeable, the capillary properties are such that with a continuous supply of water at one end moisture will travel straight through the length of the brick.

It will thus be realised that, quite apart from pressure due to wind effects, a 9-inch wall of ordinary bricks containing direct capillary paths to the interior in the form of "headers" tends to be fundamentally unsound. A good drying atmosphere on the outside, following periods of rain sufficiently rapidly, is the factor which renders most walls tolerably weather resistant, since the capillaries of the brick will not usually have time to fill up before the direction of flow is reversed. We are inclined to attribute the recent damp troubles just as much to long continuous rainy periods as to the severity of the driven rain although this also can be, and generally is, operative at the same time.

In 14-inch walls there is no direct capillary path through brickwork, the moisture has further to go and the flow is therefore slowed up and there is more likelihood of it being reversed in time by drying conditions outside. At the same time a capillary path is still provided by the mortar and the success of some 14-inch walls and the failure of others probably largely depend upon the degree to which joints have been filled; a break in the continuity of the horizontal joint and absence of mortar in internal vertical joints will obviously be advantageous in avoiding a direct capillary path.

With regard to mortar in solid wall construction, it may be that for damp resistance a lime mortar is better than a Portland cement mortar or vice versa; an open porous structure is likely to possess a lower "capillary head" than

a dense one. At the moment, we are not in a position to evaluate mortars in this respect, but this matter along with the general problem is under investigation here.

From the foregoing it will be seen that as a means of preventing damp reaching the interior, the obvious remedy is a continuous cavity in the external wall. From the point of view of strength the 11-inch brick cavity wall is adequate for small house construction. It does, however, require careful design and construction and we can say that the only cases brought to our notice where the 11-inch wall has failed to provide water-tightness have been due to avoidable causes, e.g. ill-considered design at window and door heads and jambs or the provision of a capillary path by allowing mortar droppings to remain on the ties.

The alternative of providing a cement rendering, stucco or roughcast coating to the solid wall cannot be said to be a certain preventive of moisture penetration. It often serves the purpose, but with the development of shrinkage cracks or crazing (which defects, it must be admitted, cannot be wholly guarded against) such a covering becomes a definite disadvantage for the simple reason that while water will enter and tend to saturate the wall, the evaporation to the outside will be prevented or restricted and it will almost certainly occur from the internal surface; any salts dissolved during the passage of the moisture through the wall will thus be crystallised at or near the internal plaster surface, usually with disastrous effects on plaster and decoration.

There are, of course, outside coatings which are practically impermeable, e.g. certain bituminous preparations, paints, etc., but the disadvantage is that they are either unsightly or expensive to maintain. We cannot recommend the application of any of the so-called colourless waterproofers as a permanent safeguard. Some, no doubt, may be effective for a period.

Apart from external walls, the bad weather conditions we have been experiencing have brought to light other situations in which modifications of design and construction appear to be demanded. For instance, exposed chimney stacks have become saturated and have provided reservoirs of moisture which has been drawn into the neighbouring wall and ceiling plaster. One result has been a great deal of unnecessary work on flashings these being immediately suspected. A remedy would be the provision of a damp course at about roof level. We have also noticed much repair work (which unfortunately will be of no avail) being carried out on the verges of gable walls where tiles have been carried over and bedded down in mortar; although the tiles allowed no water to permeate elsewhere, where a capillary path was provided by the bedding mortar the moisture passed through and was conducted into the brickwork; obviously an impermeable damp course is required under the tiles. This type of failure is, incidentally, a strong argument against the torching of roofing tiles. Insufficient attention is paid to the protection of string courses and they are a frequent cause of penetration by holding up water running down the wall. Some of these points and others are dealt with in the "Report of the Damp Houses Committee of the Royal Institute of British Architects" which was published last year.



# STANDARDS OF ADEQUACY OF DAYLIGHT ILLUMINATION AND REASONABLE FENESTRATION.

The Science Standing Committee, having considered the following communication, are of opinion that it should be published in the JOURNAL in order to obtain the views of members.

The next Plenary Meeting of the International Commission on Illumination takes place in 1931 in this country. An attempt will doubtless then be made to extend the scope of international agreement with regard to standards of adequacy of daylight illumination, which was reached at the last Plenary Meeting of the Commission in America in 1928.

The Science Committee therefore invite the interest and co-operation of members at large with regard to a matter which may affect considerably future regulations as to the permissible height and density of buildings in towns in this and other countries.

It is requested that communications be addressed to the Hon. Secretary, Science Standing Committee, 9 Conduit Street, W.

(The Letter)

THE CHAIRMAN,  
Science Standing Committee.

DEAR DR. UNWIN,

As a member of the Daylight Committee of the International Commission you are aware of the difficulty which has arisen in the consideration of standards of adequacy of daylight for urban conditions owing to the absence of any criteria as to what might be considered fair averages of modern design for town buildings as regards (1) depth of room lit in relation to height of window head, (2) proportions of voids to solids in window walls; and in particular (3) average height of stories.

The Committee on Daylight are aware of the tendency to permit the needs of interiors lit by low and inadequate windows to enter, perhaps unconsciously, into considera-

tions of adequacy. They, therefore, desire to provide some simple standard of modern fenestration to which they can recommend that considerations of adequacy should more or less be confined. This is in order to avoid the danger on the one hand of standards being defined as a basis for building regulations sufficiently severe to protect the needs of old-fashioned buildings, which ought to be and probably soon will be rebuilt; or on the other hand as a basis for regulations which presuppose possible but unduly ideal conditions of fenestration, such as lofty stories and window walls with continuous glazing.

The Committee desire if possible a single standard, sufficiently simple to be appreciated readily by non-technical minds. I have, therefore, suggested that the attached diagram, which has been averaged from designs for town buildings by a number of London and provincial architects, might be taken without serious error as representing, not unfairly, a reasonable practical epitome of average modern practice in fenestration for town buildings. As you know I have been requested by the Committee to obtain the opinions of architects upon it, and I should, therefore, be glad of an opportunity of soliciting the co-operation of my colleagues on the Science Standing Committee by inviting their criticisms. —Yours faithfully, (Signed) PERCY J. WALDRAM.

## THE EFFECT OF CORROSION OF IRON BOND.

When making alterations recently to a public building in South London erected some fifty years ago, a horizontal fracture was found round two sides of the principal room, the walls of which were 22½ in. thick and about 30 ft. high, carrying the main roof.

The fracture was ½ in. wide, and the wall was displaced for about 50 ft., 3 ft. from floor from ¼ in. to ½ in. vertically.

On cutting away the walls in question, which were internal walls built in lime mortar, the hoop iron bond was found to have corroded to an average of ¼ in.

The fracture and lifting of the walls were undoubtedly caused by the oxidation of the iron bond, as no signs of settlement were found after careful examination. It is surmised that possibly owing to heavy rain on the exposed bond before being built in set up the action which eventually occasioned the damage.

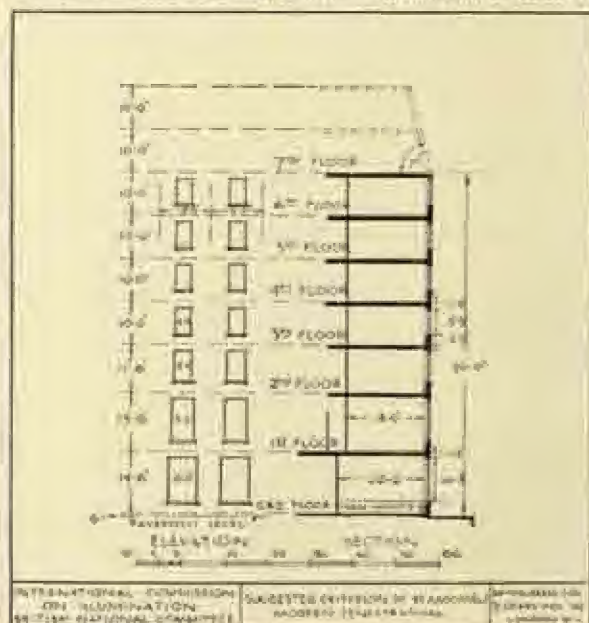
The wall being heavily plastered and painted both sides may have prevented the escape of moisture. Not having seen a wall of this height and thickness fractured in such away before, I thought it might be of interest to members of the Institute.

G. REGINALD FARROW [F].

## HENRY POOLE, R.A.

In memory of Henry Poole's work for the Club and of his great service to Sculpture it is proposed to erect in the gardens of the Chelsea Arts Club, a Memorial Fountain embodying one of his works, "Cupid on Shell." It is thought that those who knew Henry Poole and his work would like to share in this perpetuation of his memory.

Subscriptions should be sent to The Honorary Treasurer of the Fund, Mr. E. R. Bevan, Chelsea Arts Club, 143 Church Street, S.W.3.





# Allied Societies

*(The attention of Members of the Allied Societies is particularly called to this page)*

## THE ROYAL INSTITUTE OF THE ARCHITECTS OF IRELAND.

The annual dinner of the Royal Institute of the Architects of Ireland was held at 8 Merrion Square North, Dublin, on Saturday, 8 February, the President, Mr. F. G. Hicks, in the chair. Among the guests were Sir Banister Fletcher, F.S.A., President of the Royal Institute of British Architects, and Mr. Ian MacAlister (Secretary R.I.B.A.).

The toast of "The King" having been honoured,

The Chairman proposed "Prosperity to Ireland." The marvellous progress that the country had made within the last few years, he said, was likely to continue. The effect of the Shannon scheme would be beneficial in town-planning. They hoped that the Town-Planning Bill would become law. It would facilitate development, tend to beautify the country, and prevent the erection of unsuitable buildings.

Dublin, he said, was no longer dirty, but it was still dear. It had become more beautiful and showed signs of every prosperity, and for this they had to thank the City Commissioners. The City Commissioners had done so much in so short a time that a great deal of work must have been involved in carrying out all that had been achieved by them. So long as Mr. Commissioner Murphy was at the head of affairs, Dublin, he was confident, would prosper. An important need in Dublin was a more suitable City Hall and municipal buildings. At present, the various municipal departments were scattered in all directions, and administration must be very difficult. He hoped that Dublin in future would have municipal buildings that would "knock out" those of Belfast, and even Stockholm.

Mr. Commissioner Murphy, in responding, said that when they spoke of prosperity to Ireland they meant not prosperity only for the individuals, but for the whole country. Never before, he believed, was the country so ripe for prosperity, and never before was there so much need for the wisest counsels of its citizens. Dublin had a fascination of its own, holding to it people who came from other cities, and they were very thankful for that, for it kept with them such men as their President.

Speaking of town-planning, he said that he hoped that the wise heads considering the problem would arrive at some improvement on the English Act. The municipal authorities in Dublin would welcome town-planning, and with the powers they had they had been carrying out town-planning in order to prevent haphazard development, and had been preventing wrong designs in the opening of arterial ways. The citizens, too, without much pressure, had co-operated with them. He paid a tribute to the assistance and guidance given by the Institute in regard to the design of the new block in O'Connell Street. By the co-ordination of the design they had enhanced the appearance of that fine thoroughfare.

Mr. R. Caulfield Orpen proposed in an eloquent and humorous speech the toast of "The Guests."

Sir Banister Fletcher, in responding, said that he was charmed to find himself back again in the great city of Dublin. He had visited most of the cities on the Continent, and he did not know of any city which, in its own particular way, appealed to him so much as Dublin. It was laid out in a wonderful manner—the manner in which they would like to see a capital city. Its spacious squares and its dignified buildings had always appealed to him. He was particularly interested to hear that the civic authorities were being helped so much by the architects, because if they could come together with the civic authorities to carry out plans for the amenities of the cities in which they dwelt, they would be worthy of the

position they occupied in the social economy of the world.

Sir Philip Hanson (chairman Board of Public Works), who followed, also expressed his appreciation of the increasing beauty of the City of Dublin and of the work of Mr. Commissioner Murphy and those who had helped him in adding to that beauty. He also expressed his high appreciation of the successful work of the principal architect of the Board of Works, Mr. T. J. Byrne, in restoring those great buildings, the Custom House, the Four Courts, and the Post Office.

Mr. E. Kennedy (President of the Ulster Society of Architects, Belfast) and Mr. H. V. Crawford Smith (architect to the Pembroke Estate) also responded.

## ULSTER SOCIETY OF ARCHITECTS.

Sir Banister Fletcher, President of the R.I.B.A., was the principal guest at the annual dinner of the Ulster Society of Architects, which was held at Belfast on Friday, 7 February. Mr. E. R. Kennedy, F.R.I.B.A., President of the Ulster Society, occupied the chair.

Dr. R. W. Livingstone, Vice-Chancellor of Queen's University, proposing "The Government of Northern Ireland," said it was satisfactory to know that in the near future they might look forward to a town planning Bill. They also appreciated the Government's practical interest in architectural education a matter of as great importance to local architects as to the public for whom they built.

Mr. J. H. Robb, K.C., Parliamentary Secretary to the Ministry of Education, responding, said he was sure a town planning Bill would be very dear to the hearts of the members of the Ulster Society, and it was a matter of the greatest importance to the province as a whole. They had examples round about them in all directions of the harm that could be done by the lack of a town planning Bill. He hoped the efforts of the Ulster Society of Architects and of the Government and the local authorities would prevent any increase in the number of blows upon their horizon and perhaps diminish the number there were at present. There was also the prospect of the establishment, in some form, of a School of Architecture in that province. For such a project, if the University saw its way to adopt it, he could promise the hearty co-operation, the good will and the help of the Government.

The Recorder of Belfast (his Honour Judge Thompson), proposing "The Royal Institute of British Architects and its Allied Societies," said the Institute would in a few years complete its century, and it represented all that was best in the architectural profession. It had 10,000 members, and, including the Allied Societies, many more. It took a wide and increasingly important part in public affairs. He admitted the versatility of the architect because he tried to ride two horses—the horse of art and the horse of utility. Sometimes art went ahead and sometimes utility, and while the architect must be an artist he must also be a business man. Referring to the changes in the popularity of styles of architecture, the speaker said he sometimes wished there were not quite so violent or such sudden swings from one extreme to another. The buildings of the 'nineties were bedizened and diamond-ringed, while those of the present were spinster-like and puritanical. Might he plead on behalf of the laymen that some place should also be found for beauty and for grace.

Sir Banister Fletcher, in response, said he had been filled with admiration of Belfast's beautiful setting. He had seen the City Hall, the University, and the new Parliament Buildings, and he had been much impressed with all he saw. The world would be an ugly place were it not for the art practised by the architect, and it was a great pleasure to him to hear a



gentleman holding the position of the Recorder of Belfast expressing ideas that were in keeping with those so many of them had. He (the speaker) was glad to learn that a regional planning scheme was about to be started in Ulster. It was very necessary to have such a scheme for a large and growing city like Belfast. The Greater London scheme now about covered an area of 20,000 square miles, and extended as far as 25 miles from the centre of the city. It was a big scheme, but a regional planning scheme must be big, and in London they were looking for a new town planning measure that would stop ribbon development and prevent the erection of unsightly elevations. They were also "up against" the question of the erection of public buildings with the aid of the Office of Works. He was also extremely interested to learn that there was a proposal to have a School of Architecture attached to the University, and under their own control. He hoped and trusted it would become an effective proposition, and he wished it every success.

Mr. F. G. Hicks, President of the Royal Institute of the Architects of Ireland, also responded, and conveyed architectural greetings from the South to the North. They recognized no boundaries, he said, for they were all at liberty to practise in any part of Ireland, and the only walls they could not build were tariff walls.

The Chairman, responding on behalf of the Ulster Society, said he need hardly say how the Society would welcome the School of Architecture. The Ulster Government had been good friends to them, and when a town planning scheme was projected, they turned at once to his Society, and the Society responded instantly. The speaker then made an appeal for more architectural competitions, and spoke of the benefit they were in bringing out the talent of unknown men. He hoped that if the Belfast Corporation were to undertake any new buildings they would institute a competition so that all members of the profession would be given a chance.

Mr. John Seeds, Vice-President of the Ulster Society of Architects, proposing "The City of Belfast," said the success of a town planning Bill would depend very much on how the local authorities received it; without their whole-hearted co-operation it might become a dead letter. The only alternative was some element of compulsion, but he was sure the Government, and certainly the architects, were not anxious for more compulsion than was absolutely necessary. At first the measure might seem restrictive in certain cases, but it was really legislation of a thoroughly social kind.

The Lord Mayor, Sir William Coates, Bart., D.L., who responded, said it was to be hoped that a town planning Bill would be passed in the near future, and that it would give the Corporation better opportunities of securing co-operation and assistance in any schemes for the improvement of the city.

Mr. R. S. Wilshire, A.R.I.B.A., proposed "Our Guests," and Mr. Howard Stevenson, President of the Ulster Medical Society, Mr. Robert Baillie, President of the Incorporated Law Society of Northern Ireland, and Mr. W. Dowling, vice-chairman of the Belfast Water Board, responded. The arrangements for the dinner were in the hands of Mr. R. H. Gibson, F.R.I.B.A., hon. secretary of the Ulster Society of Architects.

#### DEVON AND CORNWALL ARCHITECTURAL SOCIETY.

The annual meeting of the Devon and Cornwall Architectural Society was held on Saturday, 23 March 1930, at the Duke of Cornwall Hotel, Plymouth.

The chair was taken by the President, Mr. W. A. Vercos, A.R.I.B.A., of Plymouth, other members present being:—

*The Exeter Branch.*—Messrs. J. Bennett, L.R.I.B.A.; J. C. Beare, A.R.I.B.A.; R. M. Challice, H. M. R. Drury, A.R.I.B.A.; E. F. Hooper, L.R.I.B.A.; A. H. Ough, F.R.I.B.A.; H. A. Peters, A.R.I.B.A.; H. E. Robertson, W. J. M. Thomasson,

A.R.I.B.A.; L. F. Tonar, L.R.I.B.A.; and J. Challice, A.R.I.B.A. (Honorary Secretary). *The Plymouth Branch.*—Messrs. Chas. Cheverton, F.R.I.B.A.; W. H. May, F.R.I.B.A.; A. C. Nortman, F.R.I.B.A.; H. Victor Prigg, A.M.I.C.E.; A. S. Parker, F.R.I.B.A.; A. V. Rooke, F.R.I.B.A.; B. Priestley Shires, F.R.I.B.A.; H. R. Venning, L.R.I.B.A.; W. W. Wood, A.R.I.B.A.; E. Ashworth, S. J. Crispin, A. T. Martindale, L.R.I.B.A.; H. Watts, A.R.I.B.A.; P. J. T. Carter, E. C. Hicks, J. J. Johns, J. G. Reid, J. H. Serpell and A. F. W. Toms.

The President, in opening the meeting, drew attention to the brooch which has been recently added to the badge of office. He explained that the addition of the Devon Arms and the title of the Society, as recently altered, had materially increased the historical value of the jewel.

The Minutes of the preceding annual meeting were read, confirmed and signed by the President.

The Annual Report and Balance Sheets of the Society were presented and unanimously adopted.

Arising out of the Report and Balance Sheet, the President referred to the healthy financial state of the Society, and pointed out that annual subscriptions to kindred societies had been recently increased. He also mentioned that the value of the prizes offered in the competitions open to students had also been increased and that the results had more than justified this expenditure.

The Annual Reports and Balance Sheets of the Branches were presented and adopted.

The prizes offered for the Annual Competition of measured drawings were awarded to Mr. J. G. Reid and Mr. E. C. Hicks, both of Plymouth, who were warmly congratulated for the high standard of their work.

Mr. W. A. Vercos, the retiring President, then delivered his address, at the close of which a hearty vote of thanks was accorded him for his valuable and untiring devotion to the Society during his year of office.

The following officers and members of Council were elected for the ensuing year: President—John Bennett, L.R.I.B.A. (Exeter). Vice-Presidents—A. S. Parker, F.R.I.B.A. (Plymouth); A. H. Ough, F.R.I.B.A. (Dawlish). Past-President—W. A. Vercos, A.R.I.B.A. (Plymouth). Hon. Treasurer—S. Dobell (Exeter). Hon. Auditor—L. F. Tonar, L.R.I.B.A. (Exeter). Hon. Secretary—J. Challice, A.R.I.B.A. (Exeter). Members of Council—R. M. Challice, W. J. M. Thomasson, A.R.I.B.A.; E. Kemeys Jenkin, F.R.I.B.A.; W. F. R. Ham, H. Alban Peters, A.R.I.B.A. (Exeter); B. W. Oliver, A.R.I.B.A. (Barnstaple); B. Priestley Shires, F.R.I.B.A.; C. Cheverton, F.R.I.B.A.; H. Victor Prigg, A.M.I.C.E.; A. V. Rooke, F.R.I.B.A.; W. W. Wood, A.R.I.B.A. (Plymouth). Associated Members of Council—D. W. Cooper (Exeter) and A. T. Martindale, L.R.I.B.A. (Plymouth). The retiring President offered congratulations to Mr. John Bennett on his election as President, handed him the badge of office and vacated the chair in his favour. Mr. Bennett thanked the members for the honour they had accorded him, and assured them that it would be his pleasure to serve the Society to the utmost of his power. It was sixteen years since he had settled in the west country, and he took the opportunity of publicly expressing his appreciation of the friendliness shown to him, none of which was more sincere than that of his brother architects.

Following the business of the meeting, Mr. W. W. Wood gave an account of the encouraging progress of the architectural department of the Central School of Arts and Crafts, Plymouth. He thanked the Society for the interest that they had taken, and mentioned that the Plymouth Education Authority highly appreciated the services of the visiting committee which the Society had nominated.

The members met at luncheon prior to the meeting and spent an interesting hour, following the meeting, in a visit to buildings of historic interest.



## MODEL OF THE HOLY SEPULCHRE.

Through the instrumentality of Sir Banister Fletcher (*President*), an interesting model is being exhibited on loan in the Institute Library by the kindness of the owner, the Rt. Hon. Sir Charles Trevelyan, Bart., President of the Board of Education. It represents the Church of the Holy Sepulchre at Jerusalem, as erected by Helena, mother of Constantine, and enlarged by the Crusaders. The model is very beautifully made of wood inlaid with mother of pearl, and movable parts permit views of the interior; the various parts are numbered, and identified on an accompanying index list. Sir Charles described the model in *The Times* of 2 February 1929, following the description of a similar one on 30 January; another is said to be in the Bodleian Library, Oxford, and there are two in the British Museum, which were made in Palestine. We hope to publish a photograph of the model in our next issue on 26 April.

## MR. D. EVERETT WAID.

The 1929 Medal of Honour of the New York Chapter of the American Institute of Architects has been given to Mr. D. Everett Waid, B.S., LL.D., Honorary Corresponding Member R.I.B.A., for "distinguished work and high professional standing." The award was made by a jury composed of Messrs. W. A. Delano, Otto R. Eggers, Arthur Loomis Harmon, Hardie Phillip and Ralph I. Walker in recognition of Mr. Waid's "architectural accomplishments and as a testimony to the esteem in which he is held by a profession in which is in so many ways his debtor." Mr. Waid is a past president of the American Institute of Architects and of the New York Chapter of the Institute.

## R.I.B.A. PROBATIONERS.

During the month of February 1930 the following were registered as Probationers of the Royal Institute:—

BAKER: JOHN HENRY, 99 Belgrave Road, London, S.W.1.  
 BYROM: CHARLES NEVILLE, 85 St. Stephen's Road, Preston, Lancs.  
 CALVERT: ERIC, "Ravenhurst," Hopwood, Heywood, Lancs.  
 CASTLE: HUBERT HENRY, 25 The Headlands, Ackworth, nr. Pontefract, Yorks.  
 CHAPMAN: ALBERT GEORGE EDWARD, 53 Great Colmore Street, Birmingham.  
 COTON: THOMAS JAMES, 190 Lightwoods Road, Bearwood, Birmingham.  
 DICKINSON: RALPH, 15 Ellesboro Road, Harborne, Birmingham.  
 DOWLAND: BERNARD HAROLD, The Vicarage, Whitley Bay, Northumberland.  
 ERLANGEN: ERNEST, Camps Bay, Cape Town, South Africa.  
 FELL: IAN BUCHAN, "Rosetrevor," Point Road, Northwood, Sydney, Australia.  
 FENFOLL: FREDERICK WILFRID, Bowes House Farm, Fence Houses, co. Durham.  
 FOSTER: SHEILA MARY, 27 Newcastle Drive, Nottingham.  
 FOX: GEORGE ARTHUR, Church Square, Toddington, Dunstable, Beds.  
 GIBSON: PERCIVAL ALBERT, 209 Upper Meadow Street, Belfast, N. Ireland.  
 GOODING: JOHN FRANCES ROWLAND, 233 High Street, Erdington, Birmingham.  
 HARRISON: JOHN WILLIAM OSBORN, Shottle, Somerville Road, Sutton Coldfield, Warwickshire.  
 HAYES: LOUIS, 50 Wentworth Road, Harborne, Birmingham.

HARGRAVE: FRANK CLIFT, "Guyong," 1 Manning Road, Edgecliff, Sydney, Australia.  
 HONEYSETT: LESLIE WILLIAM, 14 Clarence Street, Cheltenham.  
 HORSFIELD: ALEXANDER JAMES, 135 Bexley Road, Erith, Kent.  
 JACQUES: GEORGE HENRY, 40 Queenswood Road, Moseley, Birmingham.  
 JOHNSON: WILLIAM FREDERICK, "The Mount," Davenport Road, Coventry.  
 JONES: JOHN LEWIS, 24 Marloes Road, Kensington, W.8.  
 LANE: RONALD JOSIAH, "Fennin," Lower Brimley Avenue, Teignmouth, Devon.  
 LEATHEN: JAMES WARDLE, 15 Hayward Avenue, Seaton Delaval, Northumberland.  
 LOCKTON: ERNEST HERBERT, 4 Rosehill Road, Wandsworth, S.W.18.  
 MAYNARD: KATHLEEN IRENE, 6 Stafford Terrace, Plymouth.  
 MILLS: REGINALD PHILIP, 22 Springfield Road, Walthamstow, E.17.  
 OSMAN: PERCIVAL FREDERICK ROBERT, 27 Ampthill Road, Southampton.  
 PATTERSON: ROBERT WALLACE, Claremont House, Montpellier, Cheltenham, Glos.  
 PILICHOWSKI: AMNON VIVIAN, 7 Hill Road, St. John's Wood, N.W.  
 ROBERTS: ANDREW IAN NORTON, "Northfield," Elton Park, Sandycove, co. Dublin.  
 ROBINSON: DOUGLAS, 50 Willow Road, Carlton, nr. Nottingham.  
 ROBSON: KENNETH LYNN, "Lynnfield," Pastures Hill, Burton Road, Littleover, nr. Derby.  
 ROUND: HAROLD GEOFFREY, "Bideford," 19 South Road, Stourbridge.  
 ROY: ALLAN, The Hawes, Ainsdale, nr. Southport, Lancs.  
 SAGE: HOWARD WILFRED MORTIMER, "The Chine," Gordon Avenue, Bognor Regis.  
 SCHERRER: EMIL CYRIL, 16 Hall Farm Avenue, Davyholme, Manchester.  
 SMITH: ROSEMARY OWEN, 179 Pineapple Road, King's Heath, Birmingham.  
 SMITH: WALTER (Jnr.), "Underwood," Riddlesden, Keighley, Yorks.  
 SUDMAN: JOHN MAXWELL, 93, Howard Street, Ilfley Road Oxford.  
 THORPE: GEOFFREY HERWARD, "Bugates," 117 High Street, Burton-on-Trent.  
 WAKEFIELD: LAURENCE HARTLEY, 2 St. Oswald's Road, Redland, Bristol.  
 WEATHERHEAD: WILLIAM ANTHONY, Commerce House, Chelmsford, nr. Ipswich, Suffolk.  
 WOMERSLEY: JOHN LEWIS, 2 Linden Road, Birkby, Huddersfield.  
 WRIGHT: EVELINE MAY, 48 Sutherland Avenue, London, W.9.  
 WRIGHT: FRANCIS STRETHILL, Avon Lodge, Warwick New Road, Leamington Spa.

During the month of March 1930 the following were registered as Probationers of the Royal Institute:—

ANGUS: FREDERICK GEORGE GRANT, 19 Nelson Street, Huntly, Aberdeenshire.  
 BARTLETT: CYRIL, "Rosalind," Brodrick Avenue, Alverstoke, Hants.  
 BROOKS: GILBERT, 94 High Street, Purley.  
 BROWN: ALEXANDER, "Mount Aventine," Cyprus Avenue, Bloomfield, Belfast.  
 BURNETT: LESLIE HOWARD, 36 Barndale Road, Mossley Hill, Liverpool.  
 COMPTON: FRANK EDWARD, "Upland," Keresley, nr. Coventry, Warwickshire.



- CORNELIUS: KATHLEEN ELBA, The Hermitage, Heywell, Cheshire.  
 COWE: JOHN GIBSON, Lambton Park, Fence Houses, Co. Durham.  
 CROSSBEE: ERIC HUTTON, 21 Claremont Crescent, Edinburgh.  
 HAYMAN: GEORGE ALBERT CHARLES, 5 Church Street, Exmouth, Devon.  
 HEATHCOTE: EDGAR RONALD, Priestcliffe, Nr. Buxton, Derbyshire.  
 HUTTON: ALEXANDER MUIR, "Clevedon," Hawarden Road, Colwyn Bay, N. Wales.  
 MACTAGLANE: ROBERT ALEXANDER, 1 Woodstock Avenue, Limerick.  
 MERRIOTT: ALFRED EDWARD, 14 Alcester Street, Stoke, Devonport.  
 NOBLE: LESLIE CHARLES EMMETT, 135 Merr Road, Leicester.  
 O'CONNOR: TERENCE PATRICK, 2 Springfield Valley, St. Leonards-on-Sea.  
 PRESS: FREDERICK JAMES, 28 King Edward Road, Rugby, Warwick.  
 RAMAIAH: KUMAR, 10 Defoe Avenue, Kew, Surrey.  
 ROBERTS: RICHARD EMMYS, Glyn Teg, High Street, Bangor, N. Wales.  
 RYDER: MARCERY JULIA, 52 Vincent Square, S.W.1.  
 TAYLOR: ALFRED KENNETH, 16 Canterbury Drive, Fulwood, Sheffield.  
 WARREN: GERALD KEITH, Rimmore, West Byfleet, Surrey.

### THE PROPOSED CHARING CROSS BRIDGE.

The following Resolution was passed at a recent meeting of the Thames Bridges Conference:—

"In view of the fact that the Charing Cross Bridge Bill has obtained a second reading and cannot in Committee, be substantially improved, the Thames Bridges Conference desires to re-affirm, for reasons given at length in a recently published statement, its opposition to a radically imperfect scheme."

### THE THAMES BRIDGES CONFERENCE.

STATEMENT BY THE CHAIRMAN, MR. ARTHUR KEEN.

At the February meeting of the Thames Bridges Conference the Chairman referred to the letter from himself to Sir Edwin Lutyens which was read by the Minister of Transport to the House of Commons on 19 February, and stated that while he could not agree that there was any impropriety in writing that letter, he placed himself entirely in the hands of the members and very willingly offered his resignation of the Chairmanship if it should be felt that the usefulness of the Conference would be impaired by his continuing to hold it.

Sir Basilist Fletcher, President R.I.B.A., stated his belief that confidence in the Chairman was undiminished and proposed that he should continue to act.

This was carried unanimously.

### NEW BUILDING MATERIALS AND PREPARATIONS.

The Science Standing Committee wish to draw attention to the fact that information in the records of the Building Research Station, Garston, Watford, is freely available to any member of the architectural profession, and suggest that architects would be well advised, when considering the use of new materials and preparations of which they have had no previous experience, to apply to the Director for any information he can impart regarding their properties and application.

### REGISTER OF ARCHITECTS WILLING TO TAKE RECOGNISED SCHOOLS STUDENTS IN THEIR OFFICES.

Attention is drawn to the fact that at the office of the R.I.B.A. two registers are kept, (1) containing the names of advanced students of Recognised Schools, and (2) containing the names of architects willing to take such students.

The intention is in this way to assist advanced students up to the stage of the completion of their qualifications for exemption from the Final Examination; one of the qualifications for exemption from the Final Examination being twelve months' experience in an office during the fourth and fifth years of the School course.

The Council hope that general use will be made of the registers, and that as many architects as possible will send their names to be placed on the register.

### STUDENTS' EVENING AT THE R.I.B.A. EXHIBITION OF ARCHITECTS' WORKING DRAWINGS.

On Thursday, 20th March, a Students' Evening was held in connection with the R.I.B.A. Exhibition of Architects' Working Drawings.

There was a large attendance of students, and they spent a considerable time inspecting the exhibition, which includes drawings kindly lent by:—Mr. W. A. Forsyth (University College, Hull), New Boarding House for Rugby School; Mr. Edward Maufe (Trinity College, Cambridge), Kelling Hall, Norfolk; Professor A. E. Richardson, F.S.A. (Mothercraft Training Hostel, Highgate Hill, N.); Messrs. Watson, Salmon and Gray (Extensions to Municipal Buildings, Glasgow); Dr. P. S. Worthington, F.S.A. (Masonic Temple, Manchester).

Mr. Forsyth, Mr. Maufe, Dr. Worthington and Mr. Hyde (of Messrs. Richardson and Gill) kindly attended and explained to the students the special points of interest in their respective drawings.

### ASSOCIATION OF ARCHITECTS, SURVEYORS AND TECHNICAL ASSISTANTS.

#### DESIGN COMPETITION.

Messrs. Ewart and Son, Ltd., have decided to hold a design competition and to offer as prizes four free places in the A.A.S.T.A. tour to Madrid and other cities in Spain.

The competition is divided into two classes, A and B, for those respectively over and under 25 years of age at midnight, 15-16 May 1930.

All designs must be submitted without any indicating marks as to their authorship, and all drawings must reach the offices of the Secretary, A.A.S.T.A., 26 Buckingham Gate, London, S.W.1, not later than noon of 16 May 1930, marked clearly on the outside, "Design Competition."

The Judges have been appointed by the Association of Architects, Surveyors and Technical Assistants and their decision will be final. The Judges are:—

Mr. William H. Handlyn, A.R.I.B.A. (President, A.A.S.T.A.); Mr. Chas. McLachlan, A.R.I.B.A. (Hon. Editor of *The KeyStone*, the Journal of the A.A.S.T.A.); Mr. A. N. Cathcart will assist with regard to technical details of Roofing, Ventilation, and Hot Water Supply.

No questions can be answered relative to this competition, but general literature dealing with the materials of construction may be obtained from Messrs. Ewart and Son, Ltd., 346-350 Euston Road, London, N.W.1.



## Notices

### THE TWELFTH GENERAL MEETING.

The Twelfth General Meeting (Ordinary) of the Session 1929-30 will be held on Monday, 28 April 1930, at 8 p.m., for the following purposes:—

To read the Minutes of the Ordinary General Meeting held on Monday, 7 April 1930; formally to admit members attending for the first time since their election.

To read the following paper: "Architects' Drawings of 1800-1850," by Professor A. E. Richardson, F.S.A. [F.].

### EXHIBITION IN THE R.I.B.A. GALLERIES.

In connection with the above paper an Exhibition of "Architects' Drawings of 1800-1850" will be held in the R.I.B.A. Galleries from Thursday, 24 April, to Saturday, 24 May, inclusive. The Exhibition will be open daily between the hours of 10 a.m. and 8 p.m. (Saturdays, 10 a.m. to 5 p.m.).

### THE ANNUAL DINNER 1930.

The Annual Dinner will take place on Thursday, 15 May 1930, in the Guildhall, E.C. (by kind permission of the City Corporation). Full particulars are issued with this copy of the JOURNAL.

A limited number of seats will be reserved in the Gallery of the Guildhall in order that Members and their friends who are unable to attend the Dinner may have an opportunity of hearing the speeches.

It is expected that the Dinner will end at a rather early hour, and facilities will be given for visiting the Guildhall Art Gallery, Council Chamber and Library.

Each member applying for seats in the Gallery will receive not more than two tickets, admitting either ladies or gentlemen, which will be allotted in order of application.

Members who wish to take advantage of this arrangement are requested to make early application to the Secretary R.I.B.A., stating whether they desire one or two tickets.

### BRITISH ARCHITECTS' CONFERENCE, NORWICH.

18 to 21 JUNE 1930.

The annual conference of the Royal Institute of British Architects and its Allied Societies will take place at Norwich from 18 to 21 June 1930. The Norfolk and Norwich Association of Architects have in hand the preparation of a most attractive programme, and particulars will be issued in due course.

All members and students of the R.I.B.A. and all members of the Architectural Association and of the Allied Societies are cordially invited to attend the Conference.

It is expected that there will be a large attendance of members from all parts of the country, and they are urgently requested to arrange for their hotel accommodation at the earliest possible date so as to avoid the risk of disappointment. When communicating with Norwich hotels please mention R.I.B.A. Conference as a number of rooms have been specially reserved for members.

The Executive Committee of the Conference have kindly furnished the following list of hotels and boarding houses, with charges:—

Place and Name.	Bed and Breakfast.	Full Board per day.
<b>HOTELS.</b>		
<i>Norwich—</i>		
Royal Hotel, Prince of Wales Rd. . . . .	10/-	21/6
Maids Head Hotel, Westsum St. . . . .	10/-	21/6
Bell Hotel, Orford Hill . . . . .	8/6	—
Castle Hotel, Castle Meadow . . . . .	8/-	16/-
Mortimers Hotel, St. Giles St. . . . .	7/6	12/6
<b>PRIVATE HOTELS AND BOARDING HOUSES.</b>		
<i>Norwich—</i>		
Lansdowne Hotel, Thorpe Rd. . . . .	10/-	15/-
Heathcote, Unthank Rd. . . . .	8/-	15/-
Evening Hill, Cambridge St. . . . .	8/6	12/6
Mrs. Nicholson, 114 Thorpe Rd. . . . .	8/6	12/-
Mrs. Johnson, Ivy Bank, Thorpe Rd. . . . .	6/6	13/-
Oxford House, St. Andrews . . . . .	—	10/6
<b>HOTELS.</b>		
<i>Wroxham (7 miles from Norwich)—</i>		
King's Head Hotel . . . . .	10/6	20/6
Keys Hill Hotel . . . . .	10/6	21/-
<i>Brundall (6 miles from Norwich)—</i>		
Riverside Hotel . . . . .	7/6	18/-
<i>Cromer—</i>		
Grand Hotel, West Parade . . . . .	10/6	18/-
<i>St. Yarmouth—</i>		
Royal Hotel, Marine Parade . . . . .	8/6	15/-

### GARAGE ACCOMMODATION.

The following garages are within a short distance of the Conference Headquarters:—

	Tel. No.
Bussey & Sabberton Bros., Palace St. . . . .	1175
Delves Motors, Ltd., Prince of Wales Rd. . . . .	222
Mann Egerton Co., King St. . . . .	480
Norwich Motor Co., Recorder Rd. . . . .	1600
Maudes, Ltd., Prince of Wales Rd. . . . .	2223
Howes Garage, Chapel Field North . . . . .	1260
Clarence Garage, Thorpe Rd. . . . .	197
Motor Parks are in All Saints Green, Cattle Market, St. Martin-at-Palace Plain, St. Andrew's Hall Plain, Tombland, Riverside Rd., Market Place.	

### MEMBERS' TOUR TO THE UNITED STATES AND CANADA.

In view of the success which attended the visit to the United States and Canada of a party of members of the R.I.B.A. last year, and as many members who were unable to avail themselves of that opportunity expressed a desire to undertake such a trip on a future occasion, it has been decided to organise a further party this year.

The numerous advantages to be gained by undertaking



a visit to the United States and Canada from an architectural point of view will be obvious, particularly when the visit is made in company with fellow members of the Institute.

The suggested tour will include New York, Philadelphia, Washington, Detroit, Niagara Falls, Toronto, Ottawa and Montreal, and notes regarding the places of interest from an architectural standpoint, compiled by Mr. Percy E. Thomas, O.B.E., F.R.I.B.A., the leader of last year's party, will be available for members.

The duration of the trip will be approximately one month, and the cost, including cabin class accommodation on the Atlantic steamers, hotel accommodation in the United States and Canada, rail fares, etc., will be about £80. This amount is exclusive of meals ashore, gratuities, transfer of passengers and baggage between stations, steamers, hotels, etc., and sight-seeing trips.

The party will travel from Liverpool for New York by the Cunard Liner *Samaria* on 5 July, returning by the *Ascania* from Montreal to Plymouth and London on 25 July.

Relatives and friends of members will be welcomed.

Members interested are requested to apply to Mr. H. T. Leese, The Cunard Steamship Company, Ltd., 26-27, Cockspur Street, London, S.W.1, who will be pleased to forward a complete itinerary, etc., on request.

#### OVERSEAS APPOINTMENTS.

Members contemplating applying for appointments overseas are recommended to communicate with the Secretary R.I.B.A., who will supply them with any available information respecting conditions of employment, cost of living, climatic conditions, etc.

WILLIAM H. HAMLYN.

#### ANNUAL SUBSCRIPTIONS.

Members' subscriptions, Students' and Subscribers' contributions became due on 1 January 1930.

The amounts are as follows:—

Fellows	..	..	..	£5	5	0
Associates	..	..	..	£3	3	0
Licentiates	..	..	..	£3	3	0
Students	..	..	..	£1	1	0
Subscribers	..	..	..	£1	1	0

#### COMPOSITION OF MEMBERS' SUBSCRIPTIONS FOR LIFE MEMBERSHIP.

The attention of Members is drawn to the scheme for compounding subscriptions for Life Membership which was approved by the General Body at the Business Meeting held on Monday, 5 December 1927.

Fellows, Associates and Licentiates of the Royal Institute may become Life Members by compounding their respective annual subscriptions on the following basis:—

For a Fellow by a payment of £73 10s. (70 guineas).

For an Associate or Licentiate by a payment of £44 2s. (42 guineas), with a further payment of £20 8s. on being admitted as a Fellow.

Provided always that in the case of a Fellow or Associate the above compositions are to be reduced by £1 rs. per annum for every completed year of membership of the Royal Institute after the first five years, and in the case of a Licentiate by £1 rs. per annum for every completed year of membership of the Royal Institute.

#### R.I.B.A. STATUTORY EXAMINATION FOR DISTRICT SURVEYOR AND THE EXAMINATION FOR BUILDING SURVEYOR.

The R.I.B.A. Statutory Examination for the Office of District Surveyor under the London Building Acts, and the examination for Building Surveyor under Local Authorities, will be held at the R.I.B.A., London, on 7, 8 and 9 May 1930.

The closing date for receiving applications for admission to the Examinations, accompanied by the fee of £3 3s., is 16 April 1930.

Full particulars of the Examinations and application forms can be obtained from the Secretary R.I.B.A.

#### APPLICATIONS FOR MEMBERSHIP.

ELECTION, 16 JUNE 1930.

The following applications for election have been received. Notice of any objection or other communication respecting the candidates must be sent to the Secretary for submission to the Council prior to Monday, 12 May 1930.

#### AS FELLOWS [15].

BENJAMIN: ASHLEY FLORIAN [A. 1906], 98 George Street, Portman Square, W.1; 5 Southwick Street, Hyde Park, W.2.

BUCKNELL: LEONARD HOLCOMBE [A. 1913], 104 Great Russell Street, W.C.1; 70 Castellain Mansions, Maida Vale, W.9.

CHALLEN: HAROLD BERTRAM [A. 1921], c/o Messrs. H. O. Ellis and Clarke, 5 Old Queen Street, S.W.1; 1 Chaseville Park Road, Winchmore Hill, N.21.

CLARK: CHARLES WALTER, P.A.S.I. [A. 1908], Architect, Metropolitan Railway, Baker Street, N.W.1; The Cottage, Meath Green, Horley, Surrey.

CLARKE: JAMES ANDREW, P.A.S.I. [A. 1919], Rutherford College, Newcastle; 50 Studley Gardens, Whitley Bay, Northumberland.

CLIFTON: EDWARD NOEL, B.A., P.A.S.I. [A. 1921], Empire House, St. Martin's-le-Grand, E.C.; 21 Ovington Square, S.W.

JACKSON: GORDON WALLIS [A. 1925], 5 and 7 Yelverton Road, Bournemouth; "Bydand," Penrith Road, Bournemouth.

SUTHERLAND: THOMAS SCOTT [A. 1924], 10, Albyn Place, Aberdeen;

and the following Licentiates who have passed the qualifying Examination:—

DOWTON: WILLIAM LEONARD, 125 Pall Mall, S.W.1; 166 Rye Lane, Peckham, S.E.1; The Nook, West Wickham, Kent.

GREENEN: WALLACE AUSTIN, 5 and 7 Yelverton Road, Bournemouth; "Beaulieu," De Lisle Road, Bournemouth.

LAWRENCE: HENRY MATTHEW, Victoria Law Courts, Birmingham; "Millmead," Middleton Hall Road, King's Norton, Birmingham.

WALKLEY: ALBION HENRY, 476 Collins Road, Melbourne, Victoria, Australia; "Elinga," Kooyong Road, Toorak; and the following Licentiates who are qualified under Section IV, Clause 4 (c) of the Supplemental Charter of 1925:—

BRAGG: HENRY, 2 Avenue Road, South Norwood; Borough Engineers' Office, Wandsworth Council; 215 Balham High Road, S.W.17.

CANTILL: MARK TAYLOR, 616 North Flores Street, Hollywood, Los Angeles, California, U.S.A.

ROBERTSON: ROBERT, Architects' Department, London County Council, County Hall, S.E.1; 45 St. Mary's Mansions, Paddington, W.2.



## AS ASSOCIATES [14].

- BENNETT: WILLIAM GARNSWORTHY [Special], c/o Messrs. Eales, Cohen and Bennett, National Chambers, William Street, Perth, West Australia.
- BEVERIDGE: GILBERT ROBERT (Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice), 2 Southfields, Leek, Staffs.
- COWIN: JOHN NORRIS, B.Arch. (Liverpool) (Passed five years' course at the Liverpool School of Architecture, University of Liverpool. Exempted from Final Examination after passing Examination in Professional Practice), 24 Carlton Vale, N.W.6.
- DUNCAN: DAVID RONALD [Final], 67, Green Dragon Lane, Wichmore Hill, N.21.
- HILLIER: NORMAN BASIL (Passed five years' joint course at the Architectural Association and the Liverpool School of Architecture, University of Liverpool. Exempted from Final Examination after passing Examination in Professional Practice), Pinaster, West Hill, Winchester.
- KELHAM: HARRY WILKINSON (Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice), 29 Empingham Hill, Stamford, Lincs.
- MCINTOSH: WILLIAM GORDON (Passed five years' course at the University of Witwatersrand, Johannesburg. Exempted from Final Examination after passing Examination in Professional Practice), 672 Schoemans Street, Arcadia, Pretoria, Transvaal.
- MACLEOD: ALEXANDER NORMAN (Passed five years' course at McGill University, Montreal. Exempted from Final Examination after passing Examination in Professional Practice), 1529 Mountain Street, Montreal, Canada.
- ORFÈUR: RONALD FRANCIS [Final], 30 Guessens Road, Welwyn Garden City, Herts.
- RITCHIE: JOHN ARCHIBALD (Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice), c/o Messrs. Palmer and Turner, 1 Canton Road, Shanghai.
- ROBINSON: AUBYN PEART [Final], 71 Victoria Road, Kensington, W.8.
- TOUGH: ALEXANDER (Passed five years' course at Robert Gordon's Colleges, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice), 9 Endsleigh Gardens, W.C.1.
- WAKELIN: RICHARD NEWTON [Special], 1 Parton Street, Red Lion Square, W.C.1.
- WALL: MARY LILLIAN JOY (Miss) (Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice), 33A Crystal Palace Park Road, S.E.26.

## Queries and Replies

[A large number of questions on points of professional practice and technical interest are addressed to the Practice and Science Standing Committees and to other Committees of the Institute.]

The Council, on the recommendation of the Science Standing Committee, have decided to adopt the procedure of publishing such queries in the JOURNAL when on matters of general interest, together with the replies of those members who, having special knowledge and experience of the particular questions, have been asked to express their opinions upon them. The scheme is based upon that adopted by the Surveyors' Institution.

The identity of the member seeking the information will not be disclosed, but the replies published will be signed by the members who have supplied them.]

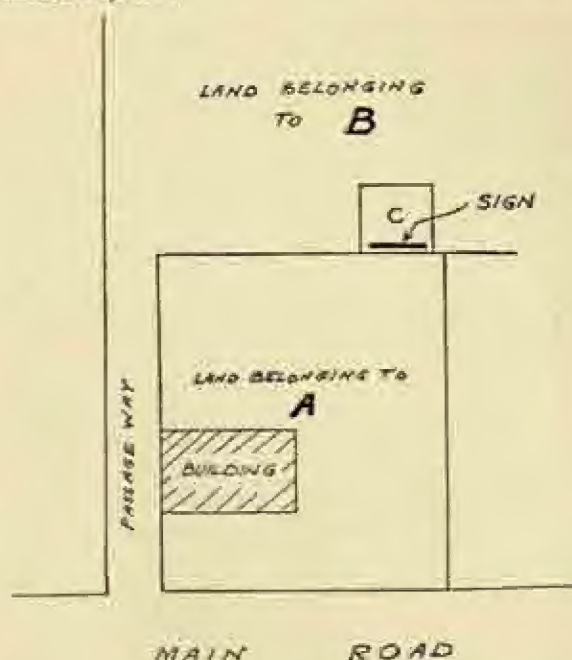
### Query No. 6.

"A" is the Freeholder of a piece of land (only partly built upon) fronting a main road,

"B" is the Freeholder of a narrow passage way (at the side of "A's" land) and also land at the back of "A's" property.

"B" has lately erected a one-storey building at "C" on plan, having a flat roof, and has placed on the flat roof a large electric sign as a trade advertisement, which can be seen from the main road over the unbuilt on portion of "A's" land.

If "A" takes no steps to protect his rights, is it possible for "B" to acquire an easement for the sign after a number of years?



### Replies to Query No. 6.

The law does not recognise the right of prospect, and no claim to an easement for the electric trade sign such as the enquiry indicates can arise.

No harm would be done, however, if A gave B formal notice of objection to the sign—and A might also be advised to plant some quick-growing trees in front of the one-storey building.  
J. DOUGLAS SCOTT [A.]

I know of no case which has decided such a point, but inasmuch as it is not possible for one owner of land to acquire a right to a view or prospect over the land of his neighbour, I am of opinion that such a right cannot be acquired for an electric trade advertisement.

I should, however, advise "A" as a precaution, to obtain from "B" an assurance that there is no intention of acquiring any right.  
CHARLES WOODWARD [A.]

In my opinion, no. An easement of prospect cannot be acquired by prescription. It would, however, be wise for "A" to obtain a written acknowledgment from "B" that the view of the advertisement sign from the road or elsewhere over "A's" land is enjoyed on sufferance only, and attach it to his title deeds.  
PERCY J. WALDRAM [L.]



*Query No. 7.*

Can you give me any information as to the basis of fees in connection with speculative work, where services rendered amount to preparation of scheme, working and detail drawings, negotiations with authorities, but not supervision?

*Replies to Query No. 7.*

The answer to this question depends on the character of the speculative work.

If it is Private Enterprise Housing Work, a scale was prepared by the R.I.B.A. in conjunction with other bodies, and can be obtained at the Royal Institute. The Scale is dated 2 June 1923.

A basis of fees for other classes of speculative work can only be deduced from the R.I.B.A. Scale of Charges, so far as I am aware. The difference in percentage between the charge in Clause 5 (b) and Clause 1, is 2 per cent. The 2 per cent. includes obtaining tenders, advising on contract, selecting Consultants, furnishing necessary detail drawings, general supervision, issuing certificates and certifying accounts. But inasmuch as the specification would only be in sufficient detail to indicate the Architect's design, and the detail drawings would probably not be so numerous as in Contract work, I think a basis of fees would be not more than 4 per cent. on the cost of the work, with a reduction if the work is of a simple character with few detail drawings, or is repetition work.

Each case, however, must be taken on its merits.

CHARLES WOODWARD [A.].

Fees for this kind of work are usually arranged by agreement but as the duties and services to be rendered are comparable with those set out under Clause 5 (b) of our scale, 4 per cent. may be taken as a reasonable basis for computing such fees.

In addition to supervision not being required there would be no issue of certificates and the mass of correspondence, interviews, etc., entailed in carrying out a job would be avoided and responsibility for defects, negligence, etc., would be practically non-existent.

J. DOUGLAS SCOTT [A.].

Your correspondent is rather indefinite in his question, but if he is referring to house work for builders on building estates, he will find the matter fully dealt with, according to the size and number of the houses, in the separate scale published by the Institute entitled "Architects' fees for private enterprise housing work." For negotiations with authorities, a further fee should be charged according to the work done.

If the work referred to is a block of offices, or a building of a similar nature, assuming that the drawings are complete, fully dimensioned and coloured, and the drainage shown, but no specification, I consider that a fair fee would be 3½ per cent. upon the estimated cost. Negotiations with authorities should be charged for in addition.

W. GILLIE SCOTT [F.].

At the request of several members, copies of the questions and answers are now printed as separate leaflets and can be obtained free on application to the Secretary.

## Competitions

### CHELMSFORD: PUBLIC LIBRARY AND MUSEUM.

The Chelmsford Corporation invite architects to submit in open competition, designs for a new Public Library and Museum at a cost of £25,000.

Assessor: Mr. H. V. Lanchester [F.].

Last day for receiving designs, 14 June 1930.

Conditions of the competition may be obtained on application to Mr. G. E. Barford, Town Clerk, Town Clerk's Office, Chelmsford. Deposit £1 is.

### ENNISKILLEN: NEW MASONIC HALL.

The Masonic body of Enniskillen invite architects practising in Ireland, to submit, in competition, designs for a new Masonic Hall to be erected in Enniskillen.

Assessor: Mr. John Seeds [F.].

Premium: £50.

Conditions of the competition may be obtained on application to Mr. R. W. Smith, Hon. Secretary, Building Committee, Masonic Hall, Enniskillen. Deposit £1 is.

[Conditions have not yet been received.]

### KINGSTON-ON-THAMES: PUBLIC BATHS.

The Kingston-on-Thames Corporation invite architects to submit in open competition, designs for the erection of public baths, with the use of one as a public hall.

Assessor: Mr. J. Ernest Franck [F.].

Premiums: £300, £200, £100 and £50.

Last day for receiving designs, 14 June 1930.

Conditions of the competition may be obtained on application to Mr. A. W. Forsdike, Town Clerk, Town Clerk's Office, Kingston-on-Thames. Deposit £1 is.

### LIVERPOOL: PROPOSED PIER HEAD IMPROVEMENTS.

The Liverpool City Council propose to offer premiums of 1,000 guineas and 500 guineas in connection with a competition for the improvement of the amenities of the Pier Head. [Conditions are not yet available.]

### LUTON: TOWN HALL.

The Town Council of Luton invite architects to submit, in open competition, designs for a new Town Hall and Municipal Buildings, at a cost of £250,000.

Assessor: Sir A. Brunwell Thomas [F.].

Premiums: £500, £300, £200, and £100.

Last day for receiving designs, 31 July 1930.

Conditions of the competition may be obtained on application to Mr. W. Smith, Town Clerk, 2 Upper George Street, Luton. Deposit £2 is.

### WEST HUMBERSTONE: LIBRARY.

The Leicester Corporation propose to invite local architects to submit, in competition, designs for a Library, to be erected at West Humberstone.

Assessor: Mr. Hugh Gold [F.].

Premiums: £75, £50 and £25.

[Conditions are not yet available.]

### WORTHING: MUNICIPAL BUILDINGS.

The Corporation of Worthing invite architects to submit, in open competition, designs for new Municipal Buildings, to be erected in Chapel Road, Worthing.

Assessor: Mr. Henry V. Ashley, V.-P.R.I.B.A.

Premiums: £350, £250, £150 and £50.

Last day for receiving designs, 5 July 1930.

Conditions of the competition may be obtained on application to Mr. J. Kennedy Allerton, Town Clerk, Worthing. Deposit £1 is.



## Members' Column

### MESSRS. KNOTT AND COLLINS.

MR. E. STONE COLLINS, F.R.I.B.A., wishes to announce that he has taken into partnership Mr. Brian S. Roberts, nephew of the late Mr. Ralph Knott.

The practice will be carried on as before, under the name of Knott and Collins, at 14 John Street, Adelphi, W.C.2.

### CHANGE OF ADDRESS.

MR. E. J. HINDSLEY, L.R.I.B.A., has removed his office to No. 2 Featherstone Buildings, High Holborn, W.C.1.

MR. DARCY BRADDELL, F.R.I.B.A., and Mr. Humphry Deane have removed their office to Victor House, Postman Square, W.1 (Entrance, 1 Baker Street). Telephone No.: Welbeck 7297.

### DISSOLUTION OF PARTNERSHIP. [28/3/30]

This partnership between Hornblower and Anag having been dissolved, Mr. George Anag, F.R.I.B.A., will continue his practice at 7 Great James Street, Bedford Row, W.C.1. The telephone number will be announced in due course.

### SITUATION VACANT.

LONDON ARCHITECT [F.] has vacancy in his office for a young lady (junior); shorthand, typewriting and usual clerical services.—Apply, stating experience and remuneration desired, T. Gordon Jackson, F.R.I.B.A., 7 Great James Street, Bedford Row, W.C.1.

### PARTNERSHIP OR PRACTICE WANTED.

YOUNG Architect with general experience is willing to consider purchasing an architectural practice or partnership. Must be in London area.—Apply Box 3330, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

### OFFICE ACCOMMODATION.

A.R.I.B.A. with furnished offices in the Temple desires to find another architect or surveyor to share same. Good opportunity for provincial firm needing London address or for junior commencing practice. Moderate inclusive terms.—Apply Box 2170, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

A ONE-ROOM office to let in Bedford Square District.—Apply Box 2440, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

## Minutes XII

### SESSION 1929-30.

At the Eleventh General Meeting (Ordinary) of the Session, 1929-30, held on Monday, 7 April 1930, at 8.0 p.m.

Sir Banister Fletcher, F.S.A., President, in the Chair.

The attendance book was signed by 17 Fellows (including 6 members of Council), 16 Associates (including 2 members of Council), 1 Licentiate (member of Council), 4 Hon. Associates and a large number of visitors.

The Minutes of the Ordinary General Meeting held on 17 March 1930, having been published in the JOURNAL, were taken as read, confirmed, and signed as correct.

The Hon. Secretary announced the decease of:—

The Rt. Hon. The Earl of Balfour, K.G., O.M., P.C., elected Hon. Fellow 1916;

Sir Edward William Beabrook, C.B., F.S.A., transferred to Hon. Associateship 1925;

Harry Percy Adams, elected Fellow 1896. Mr. H. Percy Adams was Silver Medallist for Measured Drawings in 1888, Donaldson Silver Medallist 1883, and Godwin Barsar 1894. He was a member of the Council during the session 1913-14.

Edward M. Blake, elected Fellow 1906;

James Hoey Craigie, elected Licentiate 1911, Fellow 1921;

Samuel Holland Healing, transferred to Fellowship, 1925;

Albert Edward Lambert, transferred to Fellowship, 1925;

William James Morley, elected Fellow, 1891;

Arthur Sykes, Soane Medallist 1889, elected Associate 1888, Fellow 1906 and transferred to Class of Retired Fellows 1927;

Leonard Finnegan, elected Associate 1929;

John Rogerson, elected Associate 1890;

\* William Pollard, elected Licentiate 1911;

and it was Resolved that the regrets of the Institute for their

loss be entered on the Minutes and that a message of sympathy and condolence be conveyed to their relatives.

Mr. J. Hubert Worthington, O.B.E., M.A. [A.], having read a paper on "Antonio da San Gallo the Younger,"\* a discussion ensued, and on the motion of The Rt. Hon. Sir Rennell Rodd, G.C.B., G.C.M.G., G.C.V.O., seconded by Mr. W. G. Newton, M.C., M.A. [F.], a vote of thanks was passed to Mr. Worthington by acclamation and was briefly responded to.

The Ordinary General Meeting then terminated.

\* Will be published in the issue of the JOURNAL for 10 May.

## Minutes XIII

At a Business General Meeting held on Monday, 7 April 1930, immediately after the Ordinary General Meeting above recorded and similarly constituted, with the exception of the visitors, who had been requested to retire.

The following candidates for Membership were elected by show of hands:—

### AS HON. ASSOCIATES [2].

ALEXANDER: SIDNEY ARTHUR, M.A., Canon and Treasurer of St. Paul's Cathedral.

GOETZE: SIGISMUND CHRISTIAN HUBERT.

### AS HON. CORRESPONDING MEMBERS [2].

PONTHIEMOLI: EMMANUEL. President of the Société Centrale des Architectes Français, Professor à l'école Supérieure des Beaux Arts à Paris. Inspecteur des Bâtiments et Palais Nationaux. Membre de l'Académie des Beaux Arts (Institut de France), Paris.

SANO: DR RIKI. Lecturer of Imperial University, Tokyo. President of the Japanese Institute of Architects, Dean of Technical College of Nihon University, Tokyo.

### AS FELLOWS [18].

BESSLYN: WILLIAM THOMAS, A.R.C.A. [A. 1911], Birmingham.

BROWN: COLONEL JOHN, C.B., C.B.E., D.S.O., T.D., J.P., D.L. [A. 1921], Northampton.

BUTLER: CECIL GEORGE [A. 1921].

COBB: ROBERT STANLEY, M.C. [A. 1924], Nairobi.

COLLIER: ALEXANDER, F.S.I., F.S.A. (Scot.) [A. 1920], Hamilton, Scotland.

HUGHES: HENRY CASTLE [A. 1921], Cambridge.

OWEN: REGINALD WYNN [A. 1901].

ROLLO: ROBERT LESLIE [A. 1920], Aberdeen.

SOMERVILLE: WILLIAM LYON [A. 1928], Toronto.

SURMAN: JOHN BURGESS [A. 1909], Birmingham.

WOOD: WILLIAM WALTER [A. 1921], Plymouth.

WORTHINGTON: JOHN HUBERT, O.B.E., M.A., Hon. A.R.C.A. [A. 1912], Manchester.

and the following Licentiates who have passed the qualifying Examination:—

CURRY: HAROLD WYNN, F.S.I.

HOLMES: ARTHUR HERBERT, Southend-on-Sea.

KESTVEN: LEOPOLD, Selangor, Federated Malay States.

ROBERTS: FREDERICK ANDREW, Mold;

and the following Licentiates who are qualified under Section IV, Clause 4 (c [iii]) of the Supplemental Charter of 1925:—

CAMPBELL: WILLIAM, Hanley.

SNOWDEN: THOMAS, Hull.

### AS ASSOCIATES [41].

BOON: GREGORY MAURICE [Final], Prestwich, Manchester.

BRADBURY: RONALD, B.A. Hon. (Arch.), Manchester. (Passed five years' course at the School of Architecture, Victoria University, Manchester. Exempted from Final Examination after passing Examination in Professional Practice), Stockport.

BRENCHELEY: ARTHUR REGINALD [Final], Gillingham.

BRENTNALL: RALPH HERBERT [Final], Bristol.

BRIGHT: GEORGE EDWARD [Final].



- BROWN: COLLINGS WILLIAM [Special], Pretoria.
- BUTLER: RONALD MCCONNELL (Passed five years' joint course at the Birmingham School of Architecture and the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice), Halesowen, nr. Birmingham.
- CARTER: EDWARD JULIAN, B.A. Cantab. (Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice).
- CASELLS: GEORGE ARTHUR (Passed five years' course at the Edinburgh College of Art. Exempted from Final Examination after passing Examination in Professional Practice), Corstorphine, Midlothian.
- CHAPLIN: JOHN PERCIVAL [Final], Scarborough.
- DOWER: JOHN GORDON, B.A. Cantab. [Final].
- DUFFY: THOMAS [Special], Bolton.
- FLETCHER: JANET (Miss) (Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice).
- GRAYSON: ARTHUR BELLHAM (Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice), Halesworth, Suffolk.
- HARRIS: ALLAN DANIEL AITKEN [Final], Birmingham.
- HUGHES: JOHN LESLIE, Dip. Arch. (Liverpool). (Passed five years' course at the Liverpool School of Architecture, University of Liverpool. Exempted from Final Examination after passing Examination in Professional Practice), Liverpool.
- JOHNSON: ALLAN, Dip. Arch. (Leeds). [Final].
- KEMP: SIDNEY JAMES, M.M. [Final], South Croydon.
- KENTMOUTH: WILLIAM HARDIE (Passed five years' course at the Edinburgh College of Art. Exempted from Final Examination after passing Examination in Professional Practice).
- MACDONALD: HUGH SINCLAIR (Passed five years' course at the Edinburgh College of Art. Exempted from Final Examination after passing Examination in Professional Practice), Thurso.
- McMULLIN: ALEXANDER LAWRENCE, B.A. Cantab. [Final].
- MARTIN: JOHN LESLIE (Passed five years' course at the School of Architecture, Victoria University, Manchester. Exempted from Final Examination after passing Examination in Professional Practice), Bramhall, Cheshire.
- MAYNARD: FREDERICK JAMES [Final], Harrow.
- MURRAY: JAMES MACKIE (Passed five years' course at the Edinburgh College of Art. Exempted from Final Examination after passing Examination in Professional Practice), Edinburgh.
- NEIL: CHARLES WARREN [Final], Westcliff-on-Sea.
- NISBET: JOHN ATHLETAN VICTOR, B. Arch. (Sydney). (Passed five years' course at Sydney University School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice).
- PATNER: VITHAL MUKUND (Passed five years' course at the University of London School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice).
- PHILLIPSON: BEATRIX JANET (Miss), B.A. London (Passed five years' course at the University of London School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice).
- PRIEST: GEOFFREY LANGFORD [Final], Newcastle-on-Tyne.
- RANDALL: GERALD FRAYNE, B.A. Eng. Camb. (Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice), Petworth, Sussex.
- REA: HERBERT FRANCIS [Final], Totnes.
- SEAR-OWEN: GODFREY JOSCELYN SEAR [Final], Warrington.
- SHAW: ROBERT [Final], Bingley, Yorkshire.
- SHEPHERD: GEORGE HENRY [Final], Heckmondwike.

SMEED: CHARLES WILLIAM JAMES (Passed five years' course at the University of London School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice).

SONAKE: ELLIS EDWARD (Passed five years' course at the University of London School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice).

STANLEY: LESLIE STUART, M.A. Cantab. [Special], Twickenham.

STEELE: FRANK RICHARD [Final], Stoke-on-Trent.

TASSELL: GEORGE EDWARD [Final], Tillington, Stafford.

TAYLOR: GEORGE SWAN [Special], Edinburgh.

WESTERMAN: ALBERT EDWIN (Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice), Beckenham.

WHEELER-CARNICHAEL: SAMUEL DENNIS (Passed five years' course at the University of London School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice).

YOUNG: WILLIAM EDWARD [Special], Falkworth, Manchester.

The proceedings closed at 9.45 p.m.

## ARCHITECTS' BENEVOLENT SOCIETY

(Insurance Department).

### HOUSE PURCHASE SCHEME (for property in Great Britain only).

The Society is able, through the services of a leading Assurance Office, to assist an Architect (or his client) in securing the capital for the purchase of a house for his own occupation, on the following terms:—

#### AMOUNT OF LOAN.

Property value exceeding £666, but not exceeding £2,500, 75 per cent. of the value.

Property value exceeding £2,500, but not exceeding £4,500, 66½ per cent. of the value.

The value of the property is that certified by the Surveyor employed by the Office.

#### RATE OF INTEREST

In respect of loans not exceeding £2,000 5½ per cent. gross.

" " in excess of " 54 " "

#### REPAYMENT.

By means of an Endowment Assurance which discharges the loan at the end of 15 or 20 years, or at the earlier death of the borrower.

#### SPECIAL CONCESSION TO ARCHITECTS.

In the case of houses in course of erection, it has been arranged that, provided the Plan and Specification have been approved by the Surveyor acting for the Office, and the amount of the loan agreed upon, and subject to the house being completed in accordance therewith, ONE HALF of the loan will be advanced on a certificate from the Office's Surveyor that the walls of the house are erected and the roof on and covered in.

NOTE.—In 1928, over £20,000 was loaned to architects under this scheme, and as a result over £100 was handed to the Benevolent Fund.

If a quotation is required, kindly send details of your age next birthday, approximate value of house and its exact situation, to the Secretary Architects' Benevolent Society, 9 Conduit Street, London, W.

#### R.I.B.A. JOURNAL.

DATE OF PUBLICATION.—1930.—26 April: 10, 24 May; 7, 21 June; 12 July; 9 August; 20 September; 28 October.



# Journal of the Royal Institute of British Architects

THIRD SERIES

VOL. XXXVII. No. 12

26 APRIL 1930

## Contents for 26 April 1930

	Page
ORIGINAL DRAWING. By MAURO TESI .. .. .	<i>Frontispiece</i>
REPORT OF THE COUNCIL FOR THE OFFICIAL YEAR 1929-1930 .. .. .	395
THE LATE H. PERCY ADAMS. By Charles Holden [F.] .. .. .	431
ALLIED SOCIETIES :	
NORTH STAFFORDSHIRE ARCHITECTURAL ASSOCIATION .. .. .	432
NORTHERN ARCHITECTURAL ASSOCIATION / 'TESBIE' BRANCH .. .. .	433
SHEFFIELD, SOUTH YORKSHIRE AND DISTRICT SOCIETY OF ARCHITECTS AND SURVEYORS .. .. .	433
WEST YORKSHIRE SOCIETY OF ARCHITECTS .. .. .	434
SOUTH WALES INSTITUTE OF ARCHITECTS .. .. .	435
DINNER TO MR. ROBERT ATKINSON .. .. .	436
NOTES BY MEMBERS OF THE SCIENCE STANDING COMMITTEE. By H. D. Searles-Wood [F.] .. .. .	436
NOTES FROM MEETINGS OF COUNCIL .. .. .	437
NOTICES .. .. .	437
QUESTIONS AND REPLIES .. .. .	439
COMPETITIONS .. .. .	439
MEMBERS' COLUMN .. .. .	440
A.B.S. SCHEME OF INSURANCE .. .. .	440





R.I.B.A. Collection

ORIGINAL DRAWING, By Mauro Tesi





## Report of the Council for the Official Year 1929-1930

**S**INCE the publication of the last annual Report the Council have held 10 meetings and the Executive Committee of the Council have held 10 meetings.

The following Boards and Committees appointed by the Council have met and reported from time to time on the matters referred to them :—

Aerodromes Committee.  
Annual Dinner Committee.  
Architects' and Builders' Consultation Board.  
Architects' and Operatives' Consultation Board.  
Board of Architectural Education.  
Competitions Committee.  
Executive Committee.  
Finance and House Committee.  
Housing Work Panels Committee.  
London Architecture Medal Jury.  
London Building Acts Committee.

Official Architecture Committee.  
Premises Committee.  
Professional Conduct Committee.  
Publicity Committee.  
Registration Committee.  
Royal Gold Medal Committee.  
Salaried Members Committee.  
Sessional Papers Committee.  
Special Committee on the Scale of Charges.  
Thames Bridges Conference.  
Town Planning and Housing Committee.

Particulars of the work of these Boards and Committees, so far as they are available for publication, are embodied in this Report.

**Obituary.** The losses by death have been as follows :—

### HONORARY FELLOWS :

Balfour : The Rt. Hon. The Earl of, K.G., O.M., P.C. Escher : The Rt. Hon. Viscount, G.C.B., G.C.V.O.

### HONORARY ASSOCIATES :

Atherley-Jones : His Honour Judge Llewellyn Archer, K.C. Moore : Professor Charles H., A.M.  
Brubrook : Sir Edward William, C.B. Weaver : Sir Lawrence, K.B.E., F.S.A.  
Keyser : Charles Edward, M.A., F.S.A., F.S.A.Scot.,  
F.R.Hist.Soc., F.R.Soc. of Litt., J.P., D.L.

### HONORARY CORRESPONDING MEMBERS :

Hastings : Thomas, Hon. M.Arch. Liverpool (America). Lanciani : Professor Sir Rodolfo, K.C.V.O., D.C.L. Oxon (Italy).  
Medary : Milton Bennett (America).

### FELLOWS :

Adams : Harry Percy.  
Adkins : John Standen.  
Barker : Roger Bradley.  
Beswick : Harry.  
Blake : Edward M.  
Chambers : Walter Ashbridge.  
Craigie : James Hoccy.  
Davies : Samuel.  
Davy : Clifton Robert.  
Emden : William Samuel Alfred.  
Galloway : David Wishart.

Gunton : Josiah.  
Haddon : Robert Joseph.  
Hale : William John.  
Healing : Samuel Holland.  
Hearthcote : Edgar Harman.  
Henry : James Macintyre.  
Hunt : John.  
Lambert : Albert Edward.  
Leeming : Joseph.  
Lorimer : Sir Robert Sutherland.  
Lucas : William Louis.

Morley : William James.  
Nicol : George Salway.  
Orman : William Campbell.  
Oswald : Joseph.  
Segar-Owen : Segar.  
Smith : Albert William.  
Stoddart : Donald McKay.  
Walton : William Billington.  
Woodhouse : John Henry.  
Yeomans : Arthur William.  
Young : Keith Downes.



Baggallay : Frank Thomas.  
Hewitt : Edward.

RETIRED FELLOWS :  
Newcombe : William Lister.  
Parshow : William.

Rich : Frank West.  
Sykes : Arthur.

RETIRED MEMBER SOCIETY OF ARCHITECTS :  
Saunders : Theodore R.

Briggs : Richard Ward.  
Brothers : Colin Stanley.  
Dearden : Henry.  
Fetch : Ernest Edward.  
Finnegan : Leonard.

ASSOCIATES :  
Hale : Charles.  
Harlock : Edward Harold Waldegrave.  
Hebblethwaite : Charles Henry.  
Houston : John Lloyd.  
Mansell : Thomas Gildart.

Mountford : Edward Wallis.  
Roberts : Richard McMinnies.  
Rogerson : John.  
Thompson : Edward Percy.  
Whitehead : William.

Benson : Charles Bernard.  
Birka : Ellis Rawson.  
Calcott : Charles William.  
Collins : George.  
Collins : Joe.  
Duff : John.  
Ellis : John.  
Gosling : Frederic Arthur.  
Grove : Arthur.

LICENTIATES :  
Hoskins : Harry Pilmore.  
Kidd : William Alexander.  
Lister : Alfred Henry.  
Locke : Frank Walford.  
Nisbet : John Bryan.  
Oakley : Harold.  
Pollard : William.  
Price : Mansfield.  
Rossiter : Horace Edward.  
Salmon : Charles Edgar.

Scholte : Anton Hendrik.  
Scott : Alexander Hamilton.  
Sparke : Albert.  
Stalker : John.  
Steel : William.  
Thorpe : Sidney.  
Wainwright : Reginald.  
Watson : Alfred Edward.  
West : A. William.

**Membership.** The following table shows the present membership of the Royal Institute compared with the preceding five years :—

	Fellows.	Associates.	Licentiates.	Hon. Fellows.	Hon. Associates.	Hon. Corr. Members.	Retired Fellows.	Retired Members S. of A.	Subscribers	Students.	Probationers.
1925	1,182	2,319	1,965	10	65	43	52	—	—	—	—
1926	1,338	2,390	2,211	9	78	50	47	33	14	520	1,666
1927	1,415	2,420	2,130	10	81	59	49	32	16	654	1,899
1928	1,432	2,428	2,049	9	88	58	53	31	19	775	2,472
1929	1,533	2,520	1,961	11	99	64	53	32	22	781	3,210
1930	1,559	2,597	1,878	13	68	63	58	31	21	992	3,787

During the official year since the last Annual General Meeting 81 Fellows, 141 Associates, and 18 Licentiates have been admitted, as against 128 Fellows, 179 Associates, and 17 Licentiates in the previous year.

Of the 1,559 Fellows whose names appear in the current *Kalendar*, 666, or 43 per cent., were elected from the Associate Class ; 310, or 20 per cent., were elected from the Licentiate Class after examination ; 233, or 15 per cent., were elected without examination, under the conditions which existed before the grant of the Charter of 1909 ; 196, or 12 per cent., were admitted under the Charter of 1925, 64, or 4 per cent., were elected under Section IV, Clause C (ii) of the Charter of 1925, and 90, or 6 per cent., were elected by the Council under the powers contained in Clause 2 of the Charter of 1909. Of the 2,597 members of the Associate Class 1,674, or 64 per cent., have been elected since the date of the Armistice. Of the 1,878 Licentiates 955, or 51 per cent., were admitted under the Charter of 1909, and 923, or 49 per cent., under the Charter of 1925.

**The Allied Societies.** During the past year the East Anglian Society of Architects and the Suffolk Association of Architects have been admitted as Allied Societies of the R.I.B.A.

There are now 30 Allied Societies with 32 branches in Great Britain and Ireland, and 18 Allied Societies with 16 branches in the Dominions and Colonies overseas. The membership of the Allied Societies, as given in the current *Kalendar*, has now reached a total of 6,638, including 2,927 members of the Royal Institute. The membership of the Architectural Association is now 1,770, including 777 members of the Royal Institute. The membership of the Association of Architects, Surveyors, and Technical Assistants is now 837, including 111 members of the Royal Institute.

**Assessors.** Since the issue of the last Annual Report the following Assessors have been appointed on the President's nomination :—

Aberystwyth : Band Pavilion—Mr. Arnold Thornely [F].  
Ashton-under-Lyne : Fire Station—Mr. R. T. Longden [F].  
Bradford : Improvement Scheme—Professor S. D. Adairhead [F], Mr. Robert Atkinson [F].  
Bristol : Municipal Buildings—Sir Herbert Baker, A.R.A. [F], Mr. G. C. Lawrence, R.W.A. [F], Mr. E. Vincent Harris, O.B.E. [F].



Burton-on-Trent: Senior School for Girls and Boys—Mr. Herbert T. Buckland [F].  
 Carlisle: Improvement Scheme—Mr. Francis Jones [F].  
 Chelmsford: Library and Museum—Mr. H. V. Lanchester [F].  
 Guildford: Municipal Buildings—Mr. T. S. Tait [F].  
 Hackney: Town Hall Extension—Professor S. D. Adshead [F].  
 High Wycombe: Municipal Offices, Free Library and Museum—Mr. F. Winton Newman [F].  
 Ilfracombe: New Orchestral Hall, Public Offices, Café, etc.—Mr. G. C. Lawrence, R.W.A. [F].  
 Kingston-upon-Hull: Improvement Scheme—Sir Reginald Blomfield, R.A. [F].  
 Kingston-upon-Thames: Covered Swimming Baths—Mr. J. Ernest Franck [F].  
 Luton: Public Hall and Municipal Offices—Sir A. Brumwell Thomas [F].  
 Somerset Rural Community Council: Lay-out of Ganges on County Roads—Mr. Harold E. Todd [A].  
 Swansea: Civic Centre—Mr. Henry V. Ashley [F].  
 Tunbridge Wells: Municipal Buildings—Mr. E. Berry Webber [A].  
 Walthamstow: Town Hall—Mr. H. Austen Hall [F].  
 Worthing: Municipal Buildings—Mr. Henry V. Ashley [F].

**Arbitrators.** Since the issue of the last Annual Report the President has appointed the following members to act as Arbitrators in connection with building disputes:—

Mr. Louis Ambler, F.S.A. [F].	Mr. E. C. P. Mottson, F.S.I. [F].
Mr. W. H. D. Caple [F].	Mr. D. Barclay Niven [F].
Mr. John Coleridge [F].	Mr. E. J. Partridge, F.S.I. [F].
Major H. C. Corlette, O.B.E., F.S.A. [F].	Mr. Beresford Pite [F].
Mr. W. R. Davidge, F.S.I. [F].	Mr. S. B. Russell [F].
Mr. H. Alderman Dickman, M.C. [F].	Mr. Henry A. Saul [F].
Mr. George M. Eaton, P.A.S.I. [F].	Mr. E. W. B. Scott [F].
Mr. F. M. Elgood [F].	Mr. H. D. Searles-Wood [F].
Mr. W. A. Forsyth [F].	Sir John W. Simpson, K.B.E. [F].
Mr. J. Ernest Franck [F].	Mr. R. Elsey Smith [F].
Mr. Charles M. Hadfield [F].	Mr. Digby L. Solomon [F].
Lieut.-Colonel P. A. Hopkins, O.B.E. [L].	Mr. John Swarbrick [F].
Mr. Louis Jacob, F.S.I. [A].	Mr. Henry Tanner [F].
Mr. W. Campbell Jones [F].	Mr. E. S. Underwood [F].
Mr. Ivor P. Jones [A].	Mr. W. E. Watson [F].
Mr. Arthur Keen [F].	Mr. Herbert A. Welch [F].
Mr. G. C. Lawrence, R.W.A. [F].	Mr. Charles Woodward [A].

**Grants.** Since the issue of the last Annual Report the Council have made the following grants:—

	£	s.	d.		£	s.	d.
Aerodromes Committee Fund	30	0	0	Ralph Knott Memorial Fund	25	0	0
Architects' Benevolent Society	150	0	0	Royal West of England Academy School of Architecture	50	0	0
Architectural Association	100	0	0	School of Architecture, Birmingham. Recognised School Library	10	0	0
Berks, Bucks and Oxon Architectural Association. Allied Society Library	20	0	0	School of Architecture, Sheffield. Recognised School Library	25	0	0
British Engineering Standards Association	100	0	0	Sheffield, South Yorkshire and District Society of Architects and Surveyors. Allied Society Library	15	0	0
British Institute in Paris	5	5	0	Society for the Protection of Ancient Buildings	5	5	0
British School at Athens	55	5	0	Ulster Society of Architects. Allied Society Library	25	0	0
British School at Rome	750	0	0	Welsh School of Architecture, Cardiff. Recognised School Library	15	0	0
British School at Rome, Faculty of Archaeology	3	3	0	Worcester College, Oxford	25	0	0
British School of Archaeology in Egypt	1	1	0	Rhodesian Institute of Architects (Registration)	50	0	0
Council for the Preservation of Rural England	100	0	0	Institute of South African Architects (Registration)	100	0	0
Dundee Institute of Architects. Allied Society Library	25	0	0				
Franco-British Union of Architects	50	0	0				
Indian Institute of Architects. Allied Society Library	15	0	0				
London Society. (St. Paul's Bridge Petition)	25	0	0				
National Book Council	3	10	0				

**Appointments.** During the Session the Council have made the following appointments of members to represent the Royal Institute on the various bodies or for the purposes indicated:—

BRITISH SCHOOL AT ROME: COUNCIL—Mr. L. Sylvester Sullivan [F].  
 BRITISH WATERWORKS ASSOCIATION: STANDING COMMITTEE ON WATER REGULATIONS—Lt. Col. P. A. Hopkins [L.] and Mr. H. D. Searles-Wood [F].  
 NATIONAL ASSOCIATION FOR THE PREVENTION OF TUBERCULOSIS: CONFERENCE AT NEWCASTLE-ON-TYNE—Mr. T. R. Milburn [F].  
 WORLD ENGINEERING CONGRESS: TOKYO—Mr. J. C. Wynnes [F].  
 INTERNATIONAL CONGRESS ON MODERN ARCHITECTURE: ZÜRICH—Mr. Howard Robertson [F].  
 INTERNATIONAL FEDERATION OF BUILDING AND PUBLIC WORKS CONTRACTORS: FIFTH CONGRESS, LONDON—Mr. W. E. Vernon Crompton [F], Mr. Arthur Crow [F], Mr. T. E. Scott [F], Mr. Sydney Tatchell [F], Mr. W. E. Watson [F].



BRITISH ENGINEERING STANDARDS ASSOCIATION: TECHNICAL COMMITTEE ON PORTLAND BLAST FURNACE CEMENT—Mr. W. T. Benslyn [F].  
 BRITISH ENGINEERING STANDARDS ASSOCIATION: SUB-COMMITTEE ON BUILDING LIME—Mr. W. E. Vernon Crompton [F].  
 BRITISH ENGINEERING STANDARDS ASSOCIATION: TECHNICAL COMMITTEE ON NOMENCLATURE (SYMBOLS AND ABBREVIATIONS USED IN ENGINEERING)—Mr. G. N. Keht [L].  
 BRITISH ENGINEERING STANDARDS ASSOCIATION: COMMITTEE ON STANDARDISATION OF "FIRE-RESISTANCE" AND INCOMBUSTIBILITY—Mr. P. J. Black [L].  
 BRITISH ENGINEERING STANDARDS ASSOCIATION: COMMITTEE ON COMMERCIAL PLYWOOD: Mr. R. J. Angel [F].  
 FIRST INTERNATIONAL CONGRESS FOR CONCRETE AND REINFORCED CONCRETE: LIÈGE, SEPTEMBER 1926—Mr. H. D. Searles-Wood [F].  
 COURT OF GOVERNORS OF THE UNIVERSITY OF SHEFFIELD—Mr. C. M. E. Hadfield [F].  
 TRIBUNAL OF APPEAL UNDER THE LONDON BUILDING ACTS—Sir Basil Fletcher [F].  
 UNIVERSITY OF LONDON: ARCHITECTURAL EDUCATION COMMITTEE—Mr. H. M. Fletcher [F] and Mr. L. Sylvester Sullivan [F].  
 ROYAL SANITARY INSTITUTE CONGRESS: MARGATE—Mr. H. D. Searles-Wood [F] and Mr. Henry V. Ashley [F].  
 NATIONAL CONFERENCE FOR THE PRESERVATION OF THE COUNTRYSIDE: MANCHESTER AND AMELESIDE—Professor A. C. Dickie [A] and Mr. Francis Jones [F].  
 TWELFTH INTERNATIONAL HOUSING AND TOWN PLANNING CONGRESS: ROME—Dr. Raymond Unwin [F].  
 BRITISH SCHOOL AT ATHENS: MANAGING COMMITTEE—Mr. H. M. Fletcher [F].  
 SOUTH AFRICAN COLLEGE: UNIVERSITY OF CAPE TOWN: CENTENARY CELEBRATIONS—Mr. C. P. Walgate [F].  
 ELMES TESTIMONIAL FUND: FOUNDATION TRUSTEES—Mr. G. Haswell Grayson [F].  
 CONFERENCE ON HIGHER BUILDINGS IN LONDON: Professor S. D. Adshead [F], Mr. Charles Holden [F], Mr. Arthur Keen [F], Mr. W. Harding Thompson [F].  
 SOUTH WALES ARCHITECTURE MEDAL JURY: Mr. G. C. Lawrence, R.W.A. [F].

**Sessional Papers.** The following Papers have been read since the issue of the last Annual Report:—

"English Hospital Planning," by Mr. H. Percy Adams [F].  
 "The Design of Science Buildings," by Mr. Alan E. Munby, M.A., Cantab. [F].  
 "Regional Planning, with Special Reference to Greater London," by Dr. Raymond Unwin [F].  
 "The Thames Valley Preservation Scheme," by Professor Patrick Abercrombie, M.A., Liverpool [F].  
 "The Design of Modern Railway Stations in Europe and America," by Mr. Frank Pick.  
 "Antonio da San Gallo the Younger," by Mr. J. Hubert Worthington, O.B.E., M.A. [A].  
 Addresses on "Planning the New York Region," were delivered by Mr. Jay Downer, Chief Engineer of the Westchester County Park Commission, and Mr. Thomas Adams, General Director of the Regional Plan of New York and its Environs, at a Special Meeting held on 28 June 1929.

The following Papers will be read before the close of the Session:—

"Architects' Drawings of 1800-1850," by Professor A. E. Richardson, F.S.A. [F].  
 "Recent Excavations at Ur," by Mr. C. Leonard Woolley, M.A. [Hon. A].

**The R.I.B.A. Prizes and Studentships** The Deed of Award of the various Prizes and Studentships was presented to the Royal Institute at the General Meeting on 6 January, and a criticism of the work submitted was read by Mr. W. H. Ansell, M.C. [F], on 20 January. An Exhibition of the drawings was held from 7 January to 20 January in the R.I.B.A. Galleries, and was well attended. A selection of the Prize Drawings is now being sent round the Allied Societies for exhibition in various centres.

**The Royal Gold Medal.** This year the Medal was awarded to Mr. Percy Scott Worthington, M.A. Oxon., Litt.D., F.S.A. [F]. His Majesty the King having graciously signified his approval of the award, the Medal was presented on 17 March 1930.

**The Henry Jarvis Trust.** The following statement has been received from the Trustees:—

"The Capital, mostly invested in Colonial Government securities, was on 31 December 1929 of the nominal value of £16,308 2s. 5d.

"The income received during the year 1929 (including Income Tax refunded) amounted to £548 1s. 2d.

"The Bank balance at the end of 1929 was £217 3s. 3d.

"The income available for 1930 will, therefore, be this sum, plus the dividends on investments received during the current year—less the Trustees' remuneration as per deceased's will, law costs, and any other necessary outgoings."

**Exhibitions.** The following Exhibitions have been held in the Galleries during the period under review:—

International Exhibition of Modern Commercial Architecture.  
 Drawings by the late Bertram Grosvenor Goodhue (H.C.M.).  
 Photographs of Modern American Skyscrapers, lent by Mr. Alfred Bosson [F].



Designs submitted in Competition for the Archibald Dawson Scholarship.  
 Isometric Diagram of the Construction of the Dome of St. Paul's Cathedral, prepared by Mr. R. B. Brook-Greaves.  
 Designs and Drawings submitted in Competition for R.I.B.A. Prizes and Studentships.  
 Designs by Students exempted from R.I.B.A. Intermediate and Final Examinations.  
 Architects' Working Drawings.  
 Architects' Drawings of 1800-1850.

**The R.I.B.A. Travelling Cards.** Since the issue of the last Annual Report 105 Travelling Cards have been issued for the use of members and students visiting places of interest abroad; 145 cards have been issued for use in the United Kingdom.

**Christmas Lectures.** A third series of Christmas lectures for young people was delivered at the R.I.B.A. by the Hon. Humphrey A. Pakington [A.]. The subject was "English Architecture." The lectures were again attended by crowded audiences, which showed the keenest interest in the subject.

**The London Architecture Medal.** The London Architecture Medal for 1928 was awarded to Messrs. J. Murray Easton [F.] and Howard Robertson [F.] for their building, The Hall of the Royal Horticultural Society, Greycoat Place, Westminster.

At the request of the New Zealand Institute of Architects the London Architecture Medal Jury examined the drawings and photographs of the works submitted for the New Zealand Institute of Architects Gold Medal, 1929, and unanimously recommended the award of the Medal to Messrs. H. C. Grierson [A.], K. W. Aimer [A.], and M. K. Driffin [A.], for their building, the Auckland War Memorial Museum.

A jury appointed by the Essex, Cambridge and Hertfordshire Society of Architects awarded the medal for the first time for the Essex, Cambridgeshire and Hertfordshire area. It was given to Mr. Basil Oliver [F.] for his building, the "Rose and Crown" at Cambridge. The medal was presented to Mr. Oliver by the President at the annual dinner of the Society at Chelmsford, and the R.I.B.A. plaque was subsequently affixed to the building at a public ceremony at which the Mayor of Cambridge and other special guests were present.

**Annual Conferences.** The Annual Conference of 1929 was held at York. The organisation was in the hands of the Council of the York and East Yorkshire Architectural Society. Once more the Conference was favoured by good weather and in many respects, particularly in regard to the visits to buildings of interest, and to the tours in the neighbouring country, the programme was one of the most successful of the series. All those who took part are deeply indebted to those local members who, under the leadership of Mr. Stuart Syme and Mr. Dudley Harbron, worked so hard to ensure the success of the arrangements.

The Conference of 1930 will be held at Norwich from 18 June to 21 June. The arrangements are being made by the Council of the Norfolk and Norwich Association of Architects, and it is hoped that a large number of members will take advantage of the opportunity of a visit to East Anglia.

**The Annual Dinner.** The Annual Dinner of 1929 took place on 14 May 1929, in the Merchant Taylors' Hall which had been kindly lent for the purpose by the Court of the Merchant Taylors' Company. A number of distinguished guests were present, and the beautiful surroundings in which the dinner was held made it one of the most successful in the history of the Royal Institute.

The Annual Dinner of 1930 will take place on 15 May in the Guildhall, which has been kindly lent by the City Corporation. The Lord Mayor and Sheriffs of the City of London have accepted the invitation of the Royal Institute, and it is hoped that the guests will include an exceptionally distinguished gathering of public men.

**The Development of the R.I.B.A.** The proposals of the Council for the development of the R.I.B.A. were the subject of a referendum in which they were approved by a vote of quite unprecedented size, 1,930 members voted in favour, 693 against. All three classes of voting members—Fellows, Associates, and Licentiates—recorded majorities in favour of the Bye-Laws. The result was announced on 24 June 1929. The revised Bye-Laws were accordingly submitted to the Privy Council for formal approval. Owing to the holiday season, the Privy Council were unable to deal with the matter until October. Since that date the sanction of the Privy Council has been delayed owing to the submission of two hostile petitions. The first of these was sent in by the Incorporated Association of Architects and Surveyors, and the second was sent in at a considerably later date by the Institute of Builders.



The replies of the R.I.B.A. to these two petitions have been sent to the Privy Council.

It is deeply to be regretted that the friendly and helpful relations which have existed for so many years between the R.I.B.A. and the Institute of Builders should have been suddenly interrupted by the aggressive action of the latter body.

**Registration.** The fortunes of the Registration Bill are dealt with in the appended report of the Registration Committee. The Council are confident that if the steady and unfaltering support of the Royal Institute and the Allied Societies is given to the work of the Committee, the Bill will be upon the Statute Book at an early date.

**The Architectural Design of Aerodromes.** The Council have appointed an "Aerodromes Committee" to consider and report upon the architectural design of aerodromes. Air Vice-Marshal Sir Sefton Brancker, Director of Civil Aviation, is Chairman of the Committee, which consists of representatives of the R.I.B.A., the Air Ministry, the Ministry of Health, Aircraft Manufacturers, Imperial Airways, Ltd., National Flying Services, Ltd., and similar companies.

Mr. John Dower, M.A. [A.], is Secretary of the Committee.

As the basis of a survey of existing and projected aerodromes, the Committee is issuing a letter and questionnaire to the authorities of some 400 large towns in this country, and information is being obtained as to what is being done in different parts of the world in the matter of the laying out and designing of aerodromes.

### NEW PREMISES.

The whole of the site in Portland Place has now been secured on very favourable terms. It has been decided that the new building is to be the subject of a Competition open to all Members of the R.I.B.A. and of the Allied Societies. A jury of five Assessors will be appointed by the Council, and Members have been invited to send in suggestions as to the personnel of the jury. It is hoped that the conditions of the Competition will be issued during the present year.

## REPORT OF THE BOARD OF ARCHITECTURAL EDUCATION

Since the last annual Report the Board have held three meetings, the Officers of the Board have held thirteen meetings, the Examinations Committee, the Schools Committee and the Prizes and Scholarships Committee have held eight, nine, and seven meetings respectively.

Mr. L. Sylvester Sullivan was elected Chairman; Mr. W. H. Ansell (Chairman of the Examinations Committee), Professor A. E. Richardson (Chairman of the Schools Committee), and Professor A. C. Dickie (Chairman of the Prizes and Scholarships Committee) were elected Vice-Chairmen, and Mr. A. H. Moberly, M.A., Cantab., Hon. Secretary.

*The Growth of the Recognised Schools of Architecture.*—The Board wish to draw particular attention to the growth of the Recognised Schools of Architecture. These Schools have been encouraged by all possible means by the R.I.B.A., and it is satisfactory to note that there are now thirteen recognised for exemption from the Final and Intermediate Examinations and ten recognised for exemption from the Intermediate Examination only, while the number of students in attendance totals about 1,570.

*Exemption from the Final Examination.*—The following Schools are now recognised, under the usual conditions, for exemption from the Final Examination:—

- The School of Architecture, Robert Gordon's Colleges, Aberdeen.
- The Welsh School of Architecture, The Technical College, Cardiff.
- The School of Architecture, Edinburgh College of Art.
- The School of Architecture, Glasgow.
- The School of Architecture, Leeds College of Art.
- The Liverpool School of Architecture, University of Liverpool.
- The School of Architecture, The Architectural Association, London.
- The Bartlett School of Architecture, University of London.
- The School of Architecture, University of Manchester.
- The School of Architecture, University of Sydney, Australia.
- The Department of Architecture, McGill University, Montreal, Canada.
- The Department of Architecture, University of Toronto, Canada.
- The School of Architecture, University of the Witwatersrand, Johannesburg, South Africa.



*Exemption from the Intermediate Examination.*—The following Schools are now recognised, under the usual conditions, for exemption from the Intermediate Examination :—

The School of Architecture, Robert Gordon's Colleges, Aberdeen.  
 The Welsh School of Architecture, The Technical College, Cardiff.  
 The School of Architecture, Edinburgh College of Art.  
 The School of Architecture, Glasgow.  
 The School of Architecture, Leeds College of Art.  
 The Liverpool School of Architecture, University of Liverpool.  
 The School of Architecture, The Architectural Association, London.  
 The Bartlett School of Architecture, University of London.  
 The School of Architecture, University of Manchester.  
 The R.W.A. School of Architecture, Bristol.  
 The School of Architecture, Birmingham.  
 The School of Architecture, University of Cambridge.  
 The School of Architecture, Leicester College of Arts and Crafts.  
 The Department of Architecture, Surveying and Building, The Northern Polytechnic, London.  
 The School of Architecture, Armstrong College, Newcastle-upon-Tyne.  
 The School of Architecture, University of Sheffield.  
 The School of Architecture, Municipal School of Arts and Crafts, Southend-on-Sea.  
 The School of Architecture, University of Sydney, Australia.  
 The Department of Architecture, McGill University, Montreal, Canada.  
 The Department of Architecture, University of Toronto, Canada.  
 The Department of Architecture, University of Manitoba, Canada.  
 The School of Architecture, University of the Witwatersrand, Johannesburg, South Africa.  
 The School of Architecture, Sir J. J. School of Art, Bombay, India.

*Recognition for exemption from the Testimonies of Study for the Intermediate Examination.*—Students of the following Schools are allowed to submit for consideration by the R.I.B.A. Testimonies of Study Examiners, portfolios of their School work, in lieu of the Testimonies of Study required by the regulations for admission to the Intermediate Examination :—

The Architectural Section, School of Art, Burslem.  
 The School of Architecture, University College, Dublin.

#### *The Prizes and Studentships. List of Winners.*

##### *Prizes for Design.*

The Tite Prize.—Mr. A. C. Collins (Melbourne, Australia).  
 The Soane Medallion.—Mr. J. L. Martin (School of Architecture, University of Manchester).

##### *Sketching and Measured Drawings Prize.*

The Royal Institute Silver Medal for Measured Drawings.—Miss Sadie Speight (School of Architecture, University of Manchester).

##### *Post-Graduate Prizes.*

The Owen Jones Studentship.—Miss K. A. Veitch (Architectural Association School of Architecture).  
 The Royal Institute Silver Medal for an Essay.—Mr. R. A. Duncan [A.] (Architectural Association, School of Architecture).  
 The Henry Saxon Snell Prize.—Mr. K. H. Read [A.] (School of Architecture, The Polytechnic, Regent Street, London).  
 The R.I.B.A. Hunt Bursary.—Mr. T. M. Daniel [A.] (School of Architecture, University of Cambridge).  
 The R.I.B.A. Neale Bursary.—Mr. W. A. S. Cormack [A.] (School of Architecture, Robert Gordon's Colleges, Aberdeen).

##### *Other Prizes.*

The Ashpitel Prize.—Mr. R. H. Brentnall (R. W. A. School of Architecture, Bristol).  
 The R.I.B.A. Silver Medal for Recognised Schools.—Mr. J. L. Martin (School of Architecture, University of Manchester).  
 The R.I.B.A. Bronze Medal for Recognised Schools.—Mr. A. G. Gibson (Architectural Association School of Architecture).  
 The R.I.B.A. (Archibald Downey) Scholarships.—Mr. F. J. M. Ormrod (Liverpool School of Architecture), Mr. J. P. Ward (Welsh School of Architecture).  
 The R.I.B.A. (Henry Jarvis) Studentship at the Architectural Association.—Mr. G. R. Linfield.  
 The R.I.B.A. (Howard Colls) Studentship at the Architectural Association.—Mr. Ferguson Sprout.  
 The R.I.B.A. (Donaldson) Medal at the Bartlett School of Architecture, University of London.—Miss A. E. Hall.

*The Prizes and Studentships and Competitors in the Dominions Overseas.*—The arrangements have been continued whereby the competitions include Dominion competitors.

The Tite Prize Competitions were held in Melbourne, Australia, and in Auckland and Wellington, New Zealand, and the Soane Medallion Competitions were held in Auckland, New Zealand, in 1929.

The Tite Prize was won by a Dominion student, Mr. A. C. Collins, of the Public Works Department, Melbourne, Australia.

*The Rome Scholarship in Architecture, British School at Rome.*—The Council continue to guarantee the sum necessary for the provision of the Rome Scholarship in Architecture.

*The R.I.B.A. Visiting Board.*—The Visiting Board for 1929-1930 was constituted as follows :—

Mr. W. H. Ansell (Chairman),  
 Mr. G. D. Gordon Haile,  
 Mr. A. H. Moberly.

Professor A. E. Richardson,  
 Mr. L. Sylvester Sullivan.



Mr. Martin S. Briggs, H.M.I., has again accompanied the Visiting Board on its visits to Schools of Architecture which have official relations with the Board of Education, Whitehall.

During the year visits have been paid to the following schools :—

The Liverpool School of Architecture, University of Liverpool  
 The School of Architecture, University of Manchester.  
 The School of Architecture, Leeds College of Art.  
 The School of Architecture, University of Cambridge.  
 The School of Architecture, Armstrong College, Newcastle-upon-Tyne.  
 The School of Architecture, School of Arts and Crafts, Southend-on-Sea.  
 The School of Architecture, Nottingham.

*Conference between the Board and Teachers of Building Subjects.*—On Wednesday, 24 July 1929, the Board held their fifth Conference with representative teachers of building who take annually a course in London arranged by the Board of Education, Whitehall.

A paper, illustrated by lantern slides and followed by a discussion, on " The Building of the New Horticultural Hall " was read by Mr. J. Murray Easton [F.].

The teachers subsequently inspected the Exhibition of Photographs of American Skyscrapers.

*Annual Exhibitions of Designs of Students exempted from the R.I.B.A. Intermediate and Final Examinations.*—The exhibitions were held in the R.I.B.A. Galleries in October and November.

The drawings were inspected by the Board and the exhibitions were subsequently opened to the public.

A selection of the drawings included in the exhibitions is now on a tour of the Recognised Schools of Architecture.

*The Libraries of Schools of Architecture.*—During the past year the Council have again made a grant of £50 for the provision of additional studio text-books for use by students.

The Visiting Board, to whom the administration of this sum is entrusted have made grants to :—

The School of Architecture, University of Sheffield.—£25.  
 The Welsh School of Architecture, Cardiff.—£15.  
 The School of Architecture, Birmingham.—£10.

On the recommendation of the Board, the Council have decided that book-plates, consisting of the R.I.B.A. Seal and appropriate wording, shall be inserted in the books purchased by Recognised Schools with R.I.B.A. grants.

*The R.I.B.A. Maintenance Scholarships.*—The award was announced in August 1929, of two R.I.B.A. Maintenance Scholarships in Architecture and of the R.I.B.A. Fourth and Fifth Year Maintenance Scholarship in Architecture. The renewal of one R.I.B.A. Maintenance Scholarship and the A.G.B.I. Maintenance Scholarship was also announced.

The Scholarships, which are of a maximum value of £100 per annum, are intended to enable promising students, whose parents or guardians have not the necessary means, to attend an approved course at one of the Schools of Architecture recognised for exemption from the R.I.B.A. Examinations.

If the state of the Maintenance Scholarships Fund permits, further Scholarships will be offered this year.

During the past year the R.I.B.A. Allied Societies have again made generous donations to the Fund. The importance of increasing the capital of the fund must again be strongly emphasised.

*R.I.B.A. Competition for a Design for a Garage.*—Forty-five designs were received in the competition, and the jury, consisting of—

The President R.I.B.A.	Mr. J. E. Forbes [F.]
Mr. Robert Atkinson [F.]	Mr. William Rootes
Mr. T. P. Bennett [F.]	

made the following awards :—

First Prize (£350).—Mr. Thomas Spencer [A].  
 Second Prize (£70).—Messrs. P. H. Mewton and Oscar A. Bayne (Student R.I.B.A.).  
 Third Prize (£50).—Mr. Stanley Atkinson.  
 Fourth Prize (£20).—Mr. E. G. Theakston [F.].

It will be recalled that the prize money of £500 was presented to the Council by Mr. H. S. Horne.



The Board wish to offer their thanks to the donor of the prize and to the members of the jury for their services.

*Architecture in Public and Secondary Schools.*—During the Session arrangements have been made for lectures to be delivered at certain Public and Secondary Schools, on their request, with a view to encouraging the pupils' interest in Architecture and kindred subjects.

The competition for the R.I.B.A. Prizes for Public and Secondary Schools was instituted. For the prize of £2 10s. for an Essay there were eleven competitors. The prize was awarded to Miss Dorothy Pilgrim, of Notre Dame High School, Battersea, for her essay on "Southwark Cathedral," and the following were commended :—

George Richardson (Birkenhead Institute), "Lower Bebington Parish Church."  
A. C. L. Whistler (Stowe School), "The Palladian Bridge, Stowe."  
J. L. Carr (Castleford Secondary School), "Sherburn-in-Elmet Parish Church."

For the prize of £2 10s. for Sketches and Scale Drawings there were twenty-nine competitors. The prize was awarded to H. I. Gordon, of Hymers College, Hull, and Raymond Bacon, of the Grammar School, Great Yarmouth, and R. L. Young, of Queen Mary's School, Walsall, were commended.

The Board wish to offer their thanks to those who have consented to act as lecturers and to the Jury.

*R.I.B.A. Silver Medal for Recognised Schools.*—The Council, on the recommendation of the Board, have decided that in future a sum of £5 in books shall accompany the Medal.

*R.I.B.A. Athens Bursary.*—The Council, on the recommendation of the Board, have instituted a Travelling Bursary of the value of £100, tenable at the British School at Athens. The Bursary will be awarded once a year, provided a suitable candidate is forthcoming, to a member of the teaching staff of a Recognised School of Architecture, which shall grant him the necessary extension of vacation to enable him to journey to Athens, during one of the School vacations, for the purpose of study and observation.

The award is made by the President R.I.B.A., in consultation with the Officers of the Board of Architectural Education.

*Examinations in Town Planning.*—Representatives of the R.I.B.A. have joined the Town Planning Institute, the Surveyors' Institution, and the Institution of Municipal and County Engineers in a Conference to consider a scheme for one central Examination in Town Planning.

This matter is still under consideration.

*The Probationership of the R.I.B.A.*—The Council, on the recommendation of the Board, have decided that in future a certificate of having passed one of the public examinations recognised for the Probationership R.I.B.A. shall be accepted without requiring that the Examination shall have been passed in any particular subjects, but all candidates, except those who produce certificates of having passed one of the recognised public examinations with credit in drawing or art, shall be required to submit with their applications drawings showing that they possess some knowledge of drawing.

All candidates who are unable to submit certificates of general education in accordance with the regulations may make special applications to be considered on their merits.

*The Probationership R.I.B.A. List of Recognised Examinations.*—The Council, on the recommendation of the Board, have decided to include the Preliminary Examinations of the Surveyors' Institution and the Institution of Civil Engineers in the list of recognised examinations.

*The Prizes and Studentships Pamphlet.*—On the recommendation of the Board, the Council have decided to make the annual Prizes and Studentships Pamphlet free on application to elected Students R.I.B.A.

*Architectural Education Overseas.*—The Council have approved a scheme, drawn up by the Board, for the co-ordination of architectural education in the Dominions.

The scheme includes the constitution, where it has not already been done, of a Board of Architectural Education in each Dominion with functions similar to those of the R.I.B.A. Board.



*The Intermediate Examination Testimonies of Study.*—The Council, on the recommendation of the Board, have approved certain amendments to the regulations for the Intermediate Examination Testimonies of Study with a view to ensuring that candidates shall receive more exercise in design before presenting themselves for the Intermediate Examination. Candidates submitting Testimonies of Study on or after 30 April 1931 will be required to comply with the new regulations.

The Board have also called the attention of members of the R.I.B.A. to the desirability of affording pupils in offices opportunities for the early study of design.

*The Final and Special Examinations : Fees.*—The Council have decided that candidates taking the Final or Special Examinations in two parts shall be permitted to pay their Examination fees in two instalments.

*The Intermediate Examination, Irish Centre.*—Arrangements have been made, provided sufficient candidates are forthcoming, for the Intermediate Examination to be held from time to time in Belfast.

*Students and Instruction in the Practice of the Profession.*—In addition to the following :—

- (a) The R.I.B.A. Conditions of Engagement and Scale of Charges.
- (b) The Suggestions governing the Professional Conduct and Practice of Architects.
- (c) The R.I.B.A. Regulations for Competitions.
- (d) The Practice Committee's periodical reports of rulings and cases (in the R.I.B.A. JOURNAL).

Students R.I.B.A., on election, are now sent copies of the R.I.B.A. Form of Contract where Quantities do and do not form part.

*The Final Examination : Thesis.*—On the recommendation of the Board the Council have decided to include the subject of Town Planning in the regulations for the Final Examination Thesis.

*Acoustics and the Final Examination.*—The Council have approved a scheme submitted by the Board for the inclusion of simple acoustics in the Final Examination Testimonies of Study. Candidates sitting for the examinations in 1932 and subsequent years will be required to comply with the new regulations.

A list of articles and books on the subject has been prepared for issue with each list of Problems in Design, to guide candidates in obtaining the necessary information. The subjects involving acoustic treatment will be included for the first time in the list of R.I.B.A. Problems in Design for 1931.

*Publication of the Works of Rome Scholars in Architecture and R.I.B.A. (Henry Jarvis) Students.*—In the arrangement whereby the Council now provide the Rome Scholarship in Architecture, it is provided that the right to publish the architectural work of the British School at Rome shall be vested in the Royal Institute.

A special committee of the Board is now considering the question of publication.

*The Post-Graduate Prizes : Age Limit.*—On the recommendation of the Board the Council have decided to reduce the minimum age limit for the post-graduate prizes from 23 to 21 years.

*The Alfred Bosson Travelling Studentship.*—The Council have approved a revised scheme drawn up by the Board for the Alfred Bosson Travelling Studentship.

*Architectural Education and the Study of Building Science.*—A special committee has been appointed to consider and report upon this matter.

*Exhibition of Architects' Working Drawings.*—During the Session a Students' Exhibition of Architects' Working Drawings was held.

Drawings were kindly lent by the following :—

Mr. L. H. Bucknell,  
Sir John Burnet and Partners,  
Messrs. Easton and Robertson,

Messrs. Elcock and Sutcliffe,  
Mr. C. H. Holden,  
Sir Edwin Lutyens, R.A.

During the Exhibition a successful Students' Evening was held, and the Architects, or their representatives, kindly attended to explain to the students any special points of interest in their respective drawings.

*Architectural Students and Experience on Buildings in the course of Erection.*—The Council, on the recommendation of the Board, have invited the Institute of Builders to draw up lists of builders willing to give facilities to architectural students for studying building work.



*Architectural Students and Records of Historic Buildings.*—The Board are taking steps to obtain lists of typical or essential buildings in London and elsewhere, of which measured drawings should be made for the purpose of record. When these lists are furnished they will be sent to the Recognised Schools of Architecture.

*Problems in Design and Testimonies of Study.*—During the year ending 28 February 1930, 589 designs have been considered, and 431 have been approved.

*Registration as Probationer.*—During the year ending 28 February 1930, 614 Probationers have been registered.

*The Intermediate, Final and Special Examinations.*—The R.I.B.A. Intermediate Examination has been held twice in England, twice in Africa, and once in Canada.

The R.I.B.A. Final and Special Examinations have been held twice in England, three times in Africa, twice in Canada, twice in Australia, and once in New Zealand.

The results of these Examinations are as follows (for the purpose of comparison the figures for 1928-1929 are given in brackets):—

THE R.I.B.A. INTERMEDIATE EXAMINATION.

	Examined.	Passed.	Relegated.	Percentage Passed.
England	292 (234)	94 (71)	198 (163)	32 (30)
Africa	10 (2)	5 (—)	5 (2)	50 (—)
Canada	1 (—)	1 (—)	— (—)	100 (—)

The number of candidates granted special exemption from the Intermediate Examination was 7 (13).

THE RECOGNISED SCHOOLS INTERMEDIATE EXAMINATIONS QUALIFYING FOR EXEMPTION FROM THE R.I.B.A. INTERMEDIATE EXAMINATION.

Examined.	Passed.	Relegated.	Percentage Passed.
239 (194)	191 (141)	48 (53)	73 (79)

THE R.I.B.A. FINAL AND SPECIAL EXAMINATIONS.

	Examined.	Passed.	Relegated.	Percentage Passed.
England	151 (122)	61 and 17 Part 1 only (56 and 4 Part 1 only)	75 (62)	51 (51)
Africa	4 (4)	1 (3)	3 (1)	25 (75)
Canada	3 (—)	1 and 1 Part 1 only (—)	1 (—)	67 (—)
Australia	2 (1)	1 (—)	1 (1)	50 (—)
New Zealand	1 (—)	1 (—)	— (—)	100 (—)

SPECIAL EXAMINATION IN DESIGN FOR FORMER MEMBERS OF THE SOCIETY OF ARCHITECTS FOR ELECTION TO ASSOCIATESHIP.

Examined.	Passed.	Relegated.	Percentage Passed.
5 (5)	1 (1)	4 (4)	20 (20)

THE RECOGNISED SCHOOLS FINAL EXAMINATIONS QUALIFYING FOR EXEMPTION FROM THE R.I.B.A. FINAL EXAMINATION (subject to passing an examination in Professional Practice).

Examined.	Passed.	Relegated.	Percentage Passed.
128 (69)	100 (60)	28 (9)	78 (87)

304 Students have been added to the Register during the year ending 28 February 1930, and 172 have passed the R.I.B.A. Final or Special Examinations or have qualified at a Recognised School and passed the R.I.B.A. Examination in Professional Practice.

At the Examination for the R.I.B.A. Diploma in Town Planning, one candidate was examined and was relegated.

At the Statutory Examinations for candidature as District Surveyor in London, four candidates were examined and one passed.

At the Examinations for Building Surveyors under Local Authorities, one candidate was examined and was relegated.



## RECOGNISED SCHOOLS OF ARCHITECTURE STATISTICS, 1929.

A.—THE NUMBER OF STUDENTS WHO SAT FOR SCHOOL EXAMINATIONS EXEMPTING FROM THE R.I.B.A. INTERMEDIATE AND FINAL EXAMINATIONS, 1929.

	No. of Students who took Examination.	No. of Students who passed Examination.		No. of Students who took Examination.	No. of Students who passed Examination.
<i>Intermediate.</i>					
Robert Gordon's Colleges, Aberdeen	5	5	University of Manitoba	—	—
The Welsh School of Architecture	8	7	McGill University, Montreal	—	—
Edinburgh College of Art	12	12	University of Toronto (information not furnished)	—	—
Glasgow School of Architecture	12	10	Bombay School of Art	25	8
Liverpool School of Architecture	34	33	University of Witwatersrand	4	3
Architectural Association	41	34	Total	239	191
University of London	10	9	<i>Final.</i>		
University of Manchester	15	10	Robert Gordon's Colleges, Aberdeen	15	10
Birmingham School of Architecture	6	5	Welsh School of Architecture	8	3
R.W.A. School of Architecture, Bristol	3	3	Edinburgh College of Art	3	6
University of Cambridge	20	10	Glasgow School of Architecture	9	4
Leeds College of Art	10	7	Liverpool School of Architecture	21	10
Leicester College of Arts and Crafts	3	2	Architectural Association	39	37
Northern Polytechnic, London	12	10	University of London	10	7
Armstrong College, Newcastle-on-Tyne	—	—	University of Manchester	5	5
University of Sheffield	4	4	University of Sydney	11	8
Municipal School of Arts and Crafts, Southend-on-Sea	6	3	McGill University, Montreal	—	—
University of Sydney	11	17	University of Witwatersrand	3	1
			Total	128	100

B.—RETURN OF THE NUMBER OF STUDENTS IN RECOGNISED SCHOOLS TAKING COURSES LEADING TO EXEMPTION FROM THE R.I.B.A. EXAMINATIONS.

SCHOOL.	1st Year.		2nd Year.		3rd Year.		4th Year.		5th Year.		6th Year.		Total.	
	M—Men.		W—Women.		M—Men.		W—Women.		M—Men.		W—Women.		M—Men.	
	M	W	M	W	M	W	M	W	M	W	M	W	M	W
Robert Gordon's Colleges, Aberdeen	7	1	15	1	12	1	4	1	13	—	11	—	61	4
Welsh School of Architecture	0	—	5	—	3	1	4	—	7	—	—	—	30	1
Edinburgh College of Art	19	1	37	2	17	1	11	—	4	1	—	—	88	5
Glasgow School of Architecture	20	1	26	—	21	1	23	—	12	1	—	—	102	3
Liverpool School of Architecture	18	1	41	3	34	4	27	5	13	1	—	—	133	14
Architectural Association	46	16	38	12	57	9	47	7	34	5	—	—	222	49
University of London	22	3	15	1	15	2	16	1	8	4	—	—	76	11
University of Manchester	8	—	14	2	17	2	14	—	2	1	—	—	55	5
Birmingham School of Architecture	16	1	12	3	14	5	12	1	12	1	—	—	66	9
R.W.A. School of Architecture, Bristol	0	1	13	3	7	—	8	2	1	—	—	—	38	6
University of Cambridge	24	—	18	—	20	1	—	—	—	—	—	—	62	1
Leeds College of Art	11	—	13	—	13	1	8	—	6	—	—	—	53	1
Leicester College of Arts and Crafts	2	—	2	—	1	1	—	—	—	—	—	—	5	1
Northern Polytechnic, London	15	1	10	1	13	—	—	—	—	—	—	—	38	2
Armstrong College, Newcastle-on-Tyne	4	—	5	1	2	—	3	—	—	—	—	—	14	1
University of Sheffield	2	—	4	—	1	—	2	—	2	—	—	—	11	—
Municipal School of Arts and Crafts, Southend-on-Sea	3	—	2	1	3	—	1	—	—	—	—	—	9	1
University of Sydney	8	5	5	2	4	2	7	2	8	3	—	—	32	14
University of Manitoba	15	1	10	—	3	—	5	—	—	—	—	—	33	1
McGill University, Montreal	7	—	6	—	6	—	7	—	6	—	—	—	32	—
University of Toronto	16	1	8	1	8	—	5	1	—	—	—	—	37	3
Bombay School of Art	27	—	27	—	23	—	28	—	21	—	14	—	140	—
University of Witwatersrand	24	2	18	2	20	—	10	1	6	—	—	—	78	5
Total													1,435	137

Since the beginning of the Session 1929-1930 the attendances of R.I.B.A. Members at the meetings of the Board and the Schools, Examinations and Prizes and Scholarships Committees is as follows:—



BOARD OF ARCHITECTURAL EDUCATION (3 Meetings),  
No. of Attendances.

	No. of Attendances.		No. of Attendances.
W. H. Ansell	5	H. V. Lanchester	—
*C. R. Ashbee	1	G. C. Lawrence	—
Harry Bannister	2	T. Alwyn Lloyd	—
John Begg	1	Alex. McGibbon	3
T. P. Bennett	1	Edward Maufe	—
Sir Reginald Blomfield	—	A. H. Moberly	3
Alfred C. Bosson	—	F. Winton Newman	2
Professor L. B. Budden	2	George Nott	2
Professor R. M. Butler	1	Barry Parker	2
R. A. Cordingley	—	W. S. Purchon	3
Professor A. C. Dickie	—	C. H. B. Quennell	2
George Drysdale	3	Professor C. H. Reilly	3
Sir Banister Fletcher	—	Professor A. E. Richardson	3
Henry M. Fletcher	—	A. L. Roberts	3
D. Theodore Fyfe	2	Howard Robertson	1
G. D. Gordon Hake	2	R. Leslie Royle	1
E. Stanley Hall	1	Sir Giles Gilbert Scott	—
E. Vincent Harris	1	Louis de Soissons	1
William Harvey	3	L. Sylvester Sullivan	2
T. Harold Hughes	2	Maurice E. Webb	—
Sydney D. Kitson	—	Montague Wheeler	2
A. B. Knapp-Fisher	2	Hubert Worthington	2

\* Term of appointment expired after first meeting of the Board.

## SCHOOLS COMMITTEE (6 Meetings).

No. of Attendances.	No. of Attendances.
Joseph Addison	1
W. H. Ansell	5
John Begg	—
Martin S. Briggs	6
R. A. Cordingley	4
Professor A. C. Dickie	6
George Drysdale	3
D. Theodore Fyfe	5
G. D. Gordon Hake	3
T. Harold Hughes	2
G. B. Inrie	—
A. B. Knapp-Fisher	2
D. N. Martin-Kaye	1
Edward Maufe	1
A. H. Moberly	4
George Nott	2
Hon. H. A. Pakington	2
W. S. Purchon	6
Professor C. H. Reilly	4
Professor A. E. Richardson	3
Howard Robertson	3
Thomas R. Scott	6
J. Alan Slater	1
L. Sylvester Sullivan	4
Stephen Welch	5
W. W. Wood	6

EXAMINATIONS COMMITTEE (5 Meetings),  
No. of Attendances.

No. of Attendances.	No. of Attendances.
W. H. Ansell	5
L. H. Bucknell	1
R. W. Cable	5
C. Cowles-Voysey	—
W. E. Vernon Crompton	2
W. R. Davidge	—
Professor A. C. Dickie	3
J. Edwin Forbes	4
Edwin Gunn	1
Stanley Hamp	4
F. R. Horns	2
E. R. Jarrett	2
H. V. Lanchester	1
Oswald P. Milne	—
A. H. Moberly	2
S. C. Ramsey	—
Professor A. E. Richardson	—
H. D. Searles-Wood	—
L. Sylvester Sullivan	1
Edgar A. D. Towner	1
Sydney Tatchell	4
A. J. Taylor	3
Dr. Raymond Unwin	3

PRIZES AND SCHOLARSHIPS COMMITTEE (5 Meetings),  
No. of Attendances.

No. of Attendances.	No. of Attendances.
W. H. Ansell	—
Maxwell Ayrton	—
H. Chulman Bradshaw	4
Derek L. Bridgwater	5
Martin S. Briggs	3
George Checkley	2
R. A. Cordingley	3
Professor A. C. Dickie	5
Cyril A. Farey	3
J. Edwin Forbes	3
P. D. Hepworth	—
G. Wyville Howe	2
A. B. Knapp-Fisher	1
T. A. Lodge	1
James Macgregor	2
D. N. Martin-Kaye	1
Antony Minoprio	3
A. H. Moberly	4
Verner O. Rees	2
Professor A. E. Richardson	—
Mrs. Doris Robertson	2
W. J. Smith	3
L. Sylvester Sullivan	4
Michael Tapper	5

OFFICERS OF THE BOARD OF ARCHITECTURAL EDUCATION (10 Meetings),  
No. of Attendances.

No. of Attendances.	No. of Attendances.
L. Sylvester Sullivan	10
W. H. Ansell	8
Professor A. C. Dickie	5
Professor A. E. Richardson	5
A. H. Moberly	9



## REPORT OF THE ART STANDING COMMITTEE

Since the publication of the last Annual Report the Committee have held nine meetings. The attendance of members at the seven meetings held during this Session has been as follows:—

	No. of Attendances.		No. of Attendances.
Professor S. D. Adshhead	1	Mr. O. P. Milne	2
*Mr. E. C. Bewlay	6	Hon. H. A. Pakington	5
Mr. H. Chalton Bradshaw	6	Mr. S. Rowland Pierce	4
Mr. C. F. W. Denning	5	Mr. M. H. Baillie Scott	4
Mr. R. A. Duncan	6	Mr. Louis de Soissons	4
Mr. Cyril A. Farey	2	Mr. A. S. Soutar	4
Mr. E. Maxwell Fry	6	Mr. Francis R. Taylor	7
Mr. H. S. Goodhart-Rendel	3	Mr. R. Minton Taylor	4
Mr. Charles H. Holden	5	*Mr. F. E. Towndrow	4
*Mr. C. H. Jones	4	Mr. Michael Waterhouse	2
Mr. Arthur Keen	5	*Mr. E. Berry Webber	6
*Mr. Edward Maufe	4	Mr. G. G. Wornum	4

\*Marked thus were appointed after the first meeting of the Committee. Possible attendances 6.

The following Officers were elected for the Session 1929-1930:—Chairman: Mr. E. C. Bewlay; Vice-Chairman: Mr. Arthur Keen; Hon. Secretaries: Mr. G. G. Wornum and Mr. R. A. Duncan.

*Sessional Papers.*—Recommendations were made both for subjects and speakers for the Sessional Papers for the year 1930-1931.

*Exhibitions.*—An International Exhibition of Modern Commercial Architecture was held from 7 May to 8 June 1929. The attendance at this Exhibition was considerably higher than that at previous recent exhibitions. The photographs have been mounted and sent on tour to the principal provincial centres in Great Britain and Ireland. It is now suggested that the Exhibition should be sent to the British Dominions overseas, and this suggestion is under consideration. Recommendations were made, and a special Sub-Committee was appointed to organise an Exhibition of Architects' Drawings of 1800-1850, to be held in April and May 1930.

The Committee also arranged for the Exhibition of the original isometric drawing of St. Paul's Cathedral by Mr. Brook-Greaves, and this was displayed at the Institute from 27 January to 8 February 1930.

*Lectures.*—A special series of holiday lectures for boys and girls was arranged. The lectures were delivered by The Hon. H. A. Pakington; they were extremely successful and well attended. It has been decided to continue the series.

*R.I.B.A. Architecture Medals.*—Recommendations for amending the conditions governing the award of the R.I.B.A. London Architecture Medal were made and approved by the Council, and the Committee also advised the Council on the award of Medals by the Allied Societies.

*Portland Place and New Premises for the British Broadcasting Corporation.*—At the invitation of the Howard de Walden Estate, the Committee made suggestions with regard to the design of the new building for the B.B.C. in Portland Place, and its relationship to Regent Street. The Committee's suggestions were courteously received and modifications made.

*Control of Elevations.*—A joint Sub-Committee with members of the Town Planning and Housing Committee were appointed to consider the Control of Elevations. The Sub-Committee have formulated a comprehensive report, which will be considered by the Art Committee shortly.

*Preservation of Old Buildings.*—In conjunction with the Society for the Protection of Ancient Buildings the following old buildings which have been threatened by demolition or change have been considered and recommendations made: St. John's Hospital, Northampton; "Mayfield," Orpington, Kent; Bridge over the Avon, Limpley Stoke.

*Design of Electric Light Standards.*—Representatives were appointed to confer with the Central Electricity Board and the Ministry of Health on the subject of the design and placing of electric light standards and overhead transmission poles in rural areas.

*Village Halls.*—Members of the Committee have volunteered to assist in advising as to the suitability of plans of village halls submitted to the National Council of Social Service for their approval.



## REPORT OF THE LITERATURE STANDING COMMITTEE

Since the publication of the last Annual Report, the Committee has held 10 meetings. The attendance of members at the 7 meetings held during the Session has been as follows:—

Number of Attendances.		No. of Attendances.	
Louis Ambler	6	A. E. Henderson	5
*W. H. Ansell	0	E. M. Hick	7
M. S. Briggs	6	*Miss E. K. D. Hughes	5
A. S. G. Butler	4	H. C. Hughes	4
H. W. Chester	6	E. R. Jarrett	5
*Major H. C. Corlette	6	F. H. Mansford	7
C. Cowles-Voysey	0	*F. Winton Newman	0
J. Murray Easton	5	Basil Oliver	6
D. Theodore Fyle	4	J. MacLaren Ross	4
Prof. F. S. Granger	3	C. S. Spooner	5
*G. D. Gordon Hake	2	Arthur Stratton	3
A. B. Hayward	4	Grahame B. Tubbs	7

\* Marked thus were appointed by the Council after the first meeting. Possible attendances, 6.

The following were elected the officers of the Committee: Chairman, Mr. M. S. Briggs; Vice-Chairman, Mr. Louis Ambler; Hon. Secretaries, Mr. G. B. Tubbs and Mr. Basil Oliver.

*Presentations.*—A further donation of 15 books was received from the Executors of Mr. Andrew Oliver. Among the volumes were the first edition of Inigo Jones's *Stone-heng*, 1655; James Gibbs's *Rules for Drawing the Several Parts of Architecture*, 1732; Leybourn, *The Compleat Surveyor*, 3rd edition, 1674; and 8 sheets of drawings of a Church, probably by Flitcroft.

Another donation of great interest was a manuscript book containing the Building Contracts of Winchester Royal Palace, presented by Mr. S. J. Wearing [F.]. This book has been described by Mr. A. T. Bolton [F.] in the R.I.B.A. JOURNAL of 23 November 1929, and is to form the seventh volume of the Wren Society publications.

Sir Edwin Lutyens, R.A., presented his original drawing of a "Project for a London Site." This drawing was reproduced as a frontispiece to the JOURNAL of 27 April 1929.

Six folio volumes on Egypt, Nubia and Palestine, by Roberts and Croly, were presented with a pedestal bookcase by Mr. G. B. Bridgman [P.].

Four pamphlets in Italian on Bridges, by D. A. Martinelli, bound in one volume, dated 1681-1685, were presented by Mr. A. B. Hayward [L.]. An original letter, dated 1881, from Prof. L. Donaldson, is inside the book. Prof. Donaldson stated that they are Engineers' Reports, and wished that Architects' Specifications as long ago as 1681-1685 were in existence.

*A Record of British Sculpture* at the Royal Horticultural Society's Exhibition in 1928 was presented by Mr. W. Reynolds-Stephens, P.R.B.S., on behalf of the sculptors.

A Building Account for repairing a house at Sheen for Charles I, dated 1621, and signed by Inigo Jones, was presented by Mr. Sigismund Goetze.

*R.I.B.A. New Premises—Library Accommodation.*—The Sub-Committee drew up a revised schedule of the minimum accommodation that they thought should be provided in the Library of the new building. This was approved by the Committee and forwarded to the Council.

*Visits to Libraries.*—At the suggestion of a member of the Committee a series of visits to libraries of professional institutions were arranged. The members of the Committee visited the Libraries of the London School of Hygiene and Tropical Medicine (Gower Street), Gray's Inn, The Law Society, the Institute of Civil Engineers, and the Institute of Mechanical Engineers. A report was drawn up, adopted by the Committee, and forwarded to the Secretary for submission to the Premises Committee.

*National Book Council.*—The bibliography of books on Architecture suitable for the general reader, prepared by a Sub-committee, was revised, as the old list was out of print.

*New South Wales Institute of Architects.*—The Committee was informed that the 13 volumes of the



*A.A. Sketch Book*, which had been presented in the previous Session, were much appreciated by the Institute of Architects of New South Wales.

*Royal Commission on Museums and Galleries*.—Since the last Session two further reports have been published, viz., *The Final Report, Part I*, and *Final Report, Part II*. These reports have been considered.

*Sessional Papers*.—The Committee made a number of Suggestions for Sessional Papers for the next Session.

*Original Drawings by E. H. New*.—The Librarian informed the Committee that some of the original drawings of Mr. New's architectural prints could be obtained. The matter was considered by the Committee and Mr. S. D. Kitson [*Hon. Secretary, R.I.B.A.*], and a recommendation was made to the Council that one of those drawings be purchased. The Council sanctioned the purchase of the pencil drawing of "The City and Port of London," showing the bridges and the principal buildings on both sides of the river. It has been framed and now hangs in the Hall of the Institute.

*Professional Conduct and Practice*.—Mr. W. E. Watson's [*F.*] papers on Easements, The Handbook of the American Institute of Architects on Architectural Practice, Party Walls, Contract and Specification, which had been published in the R.I.B.A. JOURNAL during 1927-29, were collected into one pamphlet. Mr. H. C. Hughes [*A.*] revised the proofs and prepared the Contents and Index of Cases.

*Library Catalogue*.—The Library catalogues have been brought up to date since the appointment of the cataloguer in 1926. The card catalogue of books (1911 onward) under authors has been revised, and that under subjects has been compiled, and the Drawings Catalogue interleaved and revised. The books taken over from the Society of Architects, the collection on Indian Archaeology, and other collections have been catalogued, Government publications re-arranged, and various topographical indexes compiled. The volume catalogues of books to 1910 are being overhauled and references to R.I.B.A. Papers therein are being amplified, more recent Institute publications having also been collected and indexed.

The Librarian reported to the Committee as follows:—

During the twelve months ending 31 March of the present year 280 volumes and 48 pamphlets have been added to the Library, exclusive of periodicals, reports, and Transactions of Societies.

The number of works presented was 84 volumes and 41 pamphlets, of which 24 volumes and 8 pamphlets were added to the Loan Library.

Works purchased numbered 196 volumes and 7 pamphlets, of which 53 volumes were added to the Loan Library.

The attendance of Readers in the Library numbered 8076, as shown by the Attendance Book, and in addition to this number the library is largely used by telephone.

The number of books issued on loan (including re-issues) was 9821; this total includes 1177 books sent through the post.

The number of tickets issued for admission to the Library, other than to members of the Institute, Students or Probationers, was 1352.

The principal acquisitions during the year (in addition to those mentioned in the Committee's report) were: Ayrton and Silcock, *Wrought Iron and its Decorative Use*; Blondel, *Description des festes données par la ville de Paris*, 1739; Blossfeldt, *Art Forms in Nature: Examples from the Plant World, photographed direct from Nature*; Clay, *Modern School Buildings*, 3rd ed., 1920; Constable, *John Flaxman, 1755-1826*; Council for the Preservation of Rural England, *The Thames Valley from Cricklade to Staines: A Survey*; Davies, *Estimating for Building and Public Works*, 7th ed.; Deloë, *A Tour Through London about the year 1725*, from the text of the original edition, edited and annotated by Sir M. M. Beeton and E. Beresford Chancellor; Evans, *The Shaft Graves and Beehive Tombs of Mycenae*; Francine, *Livre d'architecture contenant plusieurs portiques sur les cinq ordres de Colonne*, 1631; Fryer, *Wooden Monumental Effigies in England and Wales*; Garner and Stratton, *The Domestic Architecture of England during the Tudor Period*, 2nd ed., 1929; Geedings, *Metal Crafts in Architecture*; Geedings, *Wrought Iron in Architecture*; Greater London Regional Planning Committee, *First Report*, with memoranda by Dr. Raymond Unwin; Hake and Button, *Architectural Drawing*; Hamlin, *A Text Book of Architecture*, new edition; Hayes and Zahn, *Berliner architektur der nachkriegszeit*; Hergematin, *Facades of Buildings*; Horst, *Architektur der deutschen renaissance*; Hunney, *Eton College*; Jaggard, *Brickwork and its Construction*; Kousmin and Ballanti, *Le temple de la Victoire sans ailes sur l'Acropole d'Athènes restauré par R. Kousmin*, 1837; Lawrence, *Classical Sculpture*; Lloyd, *Building Craftsmanship in Brick and Tile and in Stone Slates*; Lyons, *Remains of two temples and other Roman antiquities, Bath, 1802*; Matson and Drury, *Experimental Building Science*, Vol. 2; Oliver, *The Cottages of England from the Sixteenth to the Eighteenth Century*; Pedrini, *Il ferro battuto, sbalzato e rivellato nell'arte italiana*; Picard, *L'Acropole d'Athènes*; Piranesi, *Lettere di giustificazione scritte a Milord Charlemont e a' di lui agenti di Roma*, 1757; Powys, *Repair of Ancient Buildings*; Reagan, *American Architecture of the Twentieth Century*, Vol. 2; Ridge, *Stage Lighting*; Robertson, *Handbook of Greek and Roman Architecture*; Royal Commission on Historical Monuments, London, IV, *The City*; Sexton, *American Apartment Houses, Hotels and Apartment Hotels of Today*; Stein, *On Alexander's Track to the Indus*; Strong, *Art in Ancient Rome*; Strzygowski, *Die Altitalische Kunst*; Swarbrick, *Elements of Light*; Taut, *Modern Architecture*; Vernuri, *Storia dell' arte italiana*, Vol. 9; Villiers-Stuart, *Spanish Gardens, Their History, Types and Features*; Vidrette, *La Cité Jardin*; Wanchoer, *Architekturens historie*, 2 vols.; Weaver, *The Scottish National Memorial at the Castle, Edinburgh*; Wilms, *Lichtspieltheaterbauten*; Warland, *Modern Practical Masonry*; Wren Society, Vol. 6, *The Royal Hospital for Seamen at Greenwich*.



## REPORT OF THE PRACTICE STANDING COMMITTEE

Since the publication of the last Annual Report the Committee have held 10 meetings.

The attendance of members at the 8 meetings held during this Session has been as follows :—

No. of Attendances.		No. of Attendances.	
Mr. Henry V. Ashley	6	*Mr. G. H. Lovegrove	6
Mr. John Barry	6	Mr. R. Norman Mackellar	7
Mr. F. R. Betenson	7	*Mr. E. C. P. Monson	6
*Mr. A. Burnett Brown	4	Capt. A. Seymont Reeves	8
*Mr. Frederick Chatterton	6	Mr. J. Douglas Scott	8
Mr. J. W. Denington	4	Mr. J. Alan Slater	8
Mr. H. V. Milnes Emerson	7	Mr. Sydney Tatchell	8
Mr. H. S. Fairhurst	6	Mr. Percy E. Thomas	5
*Mr. W. H. Gunton	5	Mr. Edward Unwin	7
Mr. W. H. Hamlyn	5	Mr. Francis T. Verity	6
Mr. E. Bertman Kirby	6	Mr. W. E. Watson	8
Mr. G. C. Lawrence	7	Mr. Herbert A. Welch	4

\* Marked thus, were appointed after the first meeting of the Committee. Possible attendances—7.

The following were elected the officers of the Committee :—Chairman, Mr. Sydney Tatchell ; Vice-Chairman, Mr. Percy E. Thomas ; Hon. Secretaries, Mr. W. E. Watson and Mr. W. H. Gunton.

*Special Sub-Committees.*—The Charges and Contracts Sub-Committee were not re-appointed as matters concerning the Scale of Charges are being considered by a Special Committee appointed by the Council.

The Parliamentary Sub-Committee were not re-appointed as Parliamentary matters are perused by the Hon. Secretaries and reported upon direct to the Practice Committee.

The Joint Sub-Committee of the Practice and Science Standing Committees were not re-appointed as no matters of particular moment had been before them during the previous year.

Certain Local Authorities' and Private Bills have been reported upon to the Practice Committee and the Bills have been referred either to Special Committees dealing with the particular matters such as the Control of Elevations, the Charing Cross Bridge Scheme, etc., or to the Allied Societies concerned for local action.

The Sub-Committee were re-appointed to continue the consideration of the amendment of the Prescription Act of 1832 which originally arose for consideration on the proposition of the Law Society. So far the Law Society have not moved further in the matter.

This Sub-Committee consists of :—Mr. Sydney Tatchell (*ex officio*), Mr. Percy E. Thomas (*ex officio*), Mr. W. E. Watson (*ex officio*), Mr. W. H. Gunton (*ex officio*), Mr. John Barry, Mr. E. C. P. Monson, Mr. J. Douglas Scott, Mr. F. T. Verity, Mr. Herbert A. Welch.

*Professional Conduct and Practice.*—The Council have ordered certain papers published in the JOURNAL to be reprinted in pamphlet form and they consider that the papers should be very helpful to architects and others in dealing with questions which present difficulty in everyday practice. The price of the pamphlet, which contains five papers, is 2s. 6d., and it may be obtained at Conduit Street.

During the past year one of the Hon. Secretaries has dealt with 343 requests for information upon questions of professional practice, procedure and charges, etc. These requests have been chiefly in letter form, but some have been by telephone. In some cases letters of appreciation have been received.

It should be emphasised, however, that the Practice Committee are not in a position to answer questions of a legal character.

The Singapore Society of Architects authorised a representative to lay before the Practice Committee certain grievances with regard to an Ordinance dated 1926 governing the registration and practice of architects within their area. There are two points involved : (1) That the schedule of ethics as recognised in this country is not sufficiently adopted to protect the status of practising architects ; and (2) That the Ordinance is so worded as to raise difficulty in the administration by the Board appointed thereunder. These matters have had consideration by the Practice Committee and a recommendation has been made that the Council should present a Memorial on the subject to the appropriate Department of the Home Government.



One of the Overseas Societies in alliance with the Royal Institute have deemed it wise to provide an additional clause to the local Code of Professional Practice and on the recommendation of the Practice Committee the Council have added a similar clause to the R.I.B.A. Code. The clause added reads as follows :—

“An Architect, on receiving instructions to proceed with certain work which was previously entrusted to another Architect, shall, before proceeding with such work, communicate with the Architect previously employed and enquire and ensure the fact that his engagement has been properly terminated.”

*Unprofessional Conduct.*—It is gratifying to note that the number of cases coming before the Committee is gradually decreasing, probably due to the fact that the Code of Professional Practice seems to have gained popularity as it has become better known. Some few cases have, however, after careful investigation, been recommended to the Council for consideration.

The most common form of unprofessional practice at present seems to be concerned with advertising or in displaying names on notice boards in a manner not compatible with the Code of Professional Practice.

*Scale of Professional Charges.*—The Special Committee appointed by the Council, after labours extending over three years, have submitted to the Council a revised form of Conditions of Engagement and Scale of Charges. These have been before the General Body for informal discussion and are now before the Practice Committee to facilitate further criticism of their scope and effect.

The Special Committee referred two questions to the Practice Committee.

1. Whether it would be better to disregard the wording of the present scale and revise it so that its terms were less equivocal, it thereby losing its present well-known form.

2. To respect the present wording and alter it as little as possible consistent with the proposed amendments.

The Practice Committee resolved that the wording should be altered as little as possible, having regard to the fact that the present Scale is so well known.

*Specifications.*—The Conference on Specifications have given further consideration to the question of general clauses for materials, etc., and also special clauses for work on party walls and for demolition. Seven meetings have been held during the Session. A report will be made to the Committee in due course.

*Submission to Arbitration.*—The two forms covering the appointment of an Arbitrator issued two years ago still continue to meet requirements. Several comments have, however, been made upon them but none of sufficient importance to warrant an amendment of the forms.

*Form of Contract.*—A Negotiating Sub-Committee did in July last meet representatives of the National Federation of Building Trades Employers.

It was suggested by the Institute representatives :—

(1) That the Builders should give favourable consideration to the 1909 Form as revised by the Practice Committee,

or

(2) That the Council of the Royal Institute should summon the adjourned General Meeting and re-submit the 1928 Form to it if the National Federation considered this course desirable. It was suggested, however, that a better plan would be to re-open negotiations on the basis of the 1909 Form in the light of the very pronounced opinions which had been expressed by members of the R.I.B.A. with almost complete unanimity.

(3) The publication of the 1928 Form by the Builders stating, if desired, that it was approved by the then Council of the Royal Institute in 1928.

The National Federation adopted the third suggestion and published the Contract Form and put it upon sale with an inscription on the back of the Form saying that it was approved by a Joint Conference of representatives of Architects, Surveyors and Builders.

The adjourned General Meeting of the Royal Institute was resumed on 10 June 1929, and the following resolution was passed :—



"Resolved that this meeting of the R.I.B.A. after full consideration of the terms of the proposed draft of the New Form of Contract now again submitted as in amendment of the existing and agreed 1909 Form of Contract, is unable to accept the same, but concurrently renews its offer to reconsider the amendment of the 1909 Form where necessary."

Certain individual Builders and Architects feeling somewhat concerned at the lack of unanimity between the various bodies on the subject of the Contract have held an informal meeting to enquire into and review the whole question. The Council of the Royal Institute have approved of the continuance of these informal discussions and the Practice Committee have appointed their Chairman, Mr. Sydney Tatchell, one of their Hon. Secretaries, Mr. W. E. Watson, Mr. A. Burnett Brown, a member of the Committee, and Mr. E. Stanley Hall, Vice-President, to continue the informal discussions and report thereupon to the Practice Committee.

*Joint Committee of Specialists Associations.*—A Joint Committee of Specialists Associations consisting of some 25 Sub-Contracting Associations have submitted to the Practice Committee a new form of Sub-Contract in substitution for the form issued by the London Master Builders' Association in 1926, and this Joint Committee have invited the Practice Committee to consider the document with a view to its universal adoption. The Committee have, however, deferred consideration upon it pending further negotiations with the Master Builders' representatives.

The Practice Committee have resolved that before finally approving any amended Form of Contract there will be a conference with representatives of Sub-Contracting interests.

*Replies to Queries in the Institute Journal.*—The Science Standing Committee proposed that questions affecting daily practice might be published for comment by others in the JOURNAL, and the Practice Committee expressed approval of the scheme, which it is hoped will be of service to members.

*Fifth Congress of International Federation of Building and Public Works Contractors, London, May 1930.*—The Practice Committee were invited by the Council to name delegates to this Congress and they appointed the Chairman, Mr. Sydney Tatchell, and one of the Hon. Secretaries, Mr. W. E. Watson.

*Completion of Building.*—A question was addressed to the Practice Committee for guidance on the question of when a building was finished and the Hon. Secretary was requested to prepare a memorandum on the subject. This was published in the Institute JOURNAL of 23 November 1929.

## REPORT OF THE SCIENCE STANDING COMMITTEE

Since the publication of the last Annual Report the Committee have held 10 meetings. The attendance of members at the 8 meetings held during this Session has been as follows:—

	No. of Attendances.		No. of Attendances.
Robert J. Angel	6	*Harry Hunt	4
Alfred H. Barnes	8	*G. N. Kent	5
*P. W. Barnett	6	A. E. Mayhew	4
W. T. Benslyn	3	Alin E. Munby	4
Eric L. Bird	7	*E. J. Partridge	6
W. E. Vernon Crompton	2	H. D. Seales-Wood	5
G. R. Farrow	6	Major C. F. Skipper	6
Edwin Gunn	2	*S. Pointon Taylor	6
W. A. Harvey	4	Dr. Raymond Unwin	7
Lt.-Col. A. F. Hooper	4	Percy J. Waldrain	5
Arthur J. Hope	6	C. S. White	5
Lt.-Col. P. A. Hopkins	7	T. Butler Wilson	3

\* Marked thus were appointed after the first meeting of the Committee. Possible attendances 7.

The Officers of the Committee were elected as follows: Chairman, Dr. Raymond Unwin; Vice-Chairman, Lt.-Col. P. A. Hopkins; Hon. Secretaries, Major C. F. Skipper and Mr. S. Pointon Taylor.

*Building Research Station.*—The increasingly valuable research work of this Department is becoming more and more widely appreciated, and the Committee have again to express their grateful thanks for the



generous assistance afforded in connection with matters referred to the Department, which is rapidly building up a mass of *precise* information on fundamental matters relating to building of the highest importance.

The Department's published reports on many subjects have been reviewed in the JOURNAL by members of the committee.

Dr. Stradling's proposals for Schools of Building in Universities and Technical Institutions and the possibilities of instituting scholarships in connection with these studies and specialised post-graduate work are under careful consideration by this and other interested committees.

*Building Science Abstracts.*—Attention is again drawn to the Station's monthly compilation of scientific information from all sources, copies of which can be referred to in the Library. They are of special interest to members wanting specialised information on particular work-a-day problems or towards research work.

*Special Methods of Construction and New Materials.*—The Committee have intimated through the JOURNAL that the Building Research Station has a considerable amount of useful information which is freely offered to members on application, which will assist them in judging the advisability of experimenting with new methods or materials or on dealing with failures from fundamental or other causes. All inquiries and information are treated as confidential where desirable.

*British Engineering Standards Association.*—Members of the Committee are actively engaged in representing the Institute in connection with the work of the Association as affecting building. In addition to these connections various members of the committee act as representatives for State and Local Government Departments. Interim reports from the various representatives have been received, and the Committee's considered observations have been made and forwarded on draft specifications submitted.

Suggestions for further specifications have been considered and submitted to the Association in connection with the following subjects:—

Standards for Fire Resistance and Incombustibility.

Rapid Hardening Portland Cements and Gypsum Plaster.

The immediate future financial assistance to be given to the Association is being reviewed at the request of the Finance Committee.

The representatives of the R.I.B.A. on the various Committees of the Association are as follows:—

- |  |   |
|--|---|
| Sub Committee 10/5, Metal Tubes and Connections.—Mr. P. M. Fraser [F].                                   | Special Committee 418, on Cranes and Derricks for Use on Buildings.—Mr. E. H. Evans [F].  |
| Sectional Committee 32, on Sand Lime Bricks.—Mr. H. D. Searles Wood [F.] and Mr. Thomas Wallis [F].      | Sub Committee on Standardisation of Colours.—Mr. P. J. Waldran [L].   |
| Sub Committee 32, on Materials and Manufacture.—Mr. H. D. Searles-Wood [F.] and Mr. Thomas Wallis [F].   | New Committee on Standard Methods of Testing Small Clear Specimens of Timber.—Mr. E. H. Evans [F].                                  |
| Sectional Committee on Bridges and General Building Construction.—Mr. A. Alban H. Scott [F].             | Sub Committee on Cast Iron Half-round O.G. and other Moulded Gutters.—Mr. G. N. Kent [L.] and Mr. E. L. Bird [A].                   |
| Panel: Ready Mixed Paints, etc.—Mr. H. D. Searles-Wood [F].  | Sectional Committee 15, Vitrified Ware Pipes.—Mr. R. J. Angel [F].  |
| Sub Committee on Paints and Varnishes.—Mr. H. D. Searles-Wood [F].                                       | Panel 6/—7, Revision of Report No. 6, New B.S. Steel Sections.—Dr. Oscar Faber [Hon. A].  |
| Technical Committee P.W./12 on Cement.—Mr. W. T. Benslyn [A].  | Committee B/G. 9, Cast Iron Pipes for Heating, Ventilation and House Drainage.—Mr. G. R. Farrow [F.] and Lt.-Col. A. F. Hooper [A]. |
| Panel: Varnishes, etc.—Mr. H. D. Searles-Wood [F].   | Sub Committee BG./6/1, Building Lime.—Mr. W. E. Vernon Crompton [F].  |
| Sectional Committee 19 Standardisation of Building Materials.—Mr. P. M. Fraser [F].                      | Technical Committee PW/34, Portland Blast Furnace Cement.—Mr. W. T. Benslyn [A].  |
| Sub Committee 37/2, on Asphalt for Roofing.—Mr. Edwin Gunn [A].  | Technical Committee on Nomenclature (Symbols and Abbreviations Used in Engineering).—Mr. G. N. Kent [L].                            |
| Sub Committee 37/3, on Asbestos Cement Sheetting.—Mr. P. M. Fraser [F].                                  | Committee on Standardisation of "Fire Resistance" and "Incombustibility."—Mr. P. J. Black [L].                                      |
| Sub Committee 37/4, on Expanded Metal and Expanded Metal Lathing.—Mr. H. Haylock Golding [A].            | Committee on Commercial Plywood.—Mr. R. J. Angel [F].   |
| Sub Committee on a Standard Specification for Grey and White Hydrated Lime.—Mr. Harvey R. Sayer [A].     |   |
| Sub Committee on Standardisation and Simplification with regard to Slates and Tiles.—Mr. Edwin Gunn [A]. |   |

*Forest Products Research Laboratory.*—Members will be interested to hear that a further scheme of research into timber diseases is under consideration, which should be of great service to Architects and Builders.



*Revision of Timber Specifications.*—The Committee's representatives have submitted interim reports indicating interesting and valuable discussions of the Conference convened to consider this matter.

*Timber Storage at the Surrey Commercial Docks.*—Further correspondence on the subject of desirable improvements in the methods of timber storage at these Docks has taken place with some effect, and there is little doubt that if sufficient pressure from other interested bodies or persons was brought to bear additional safeguards would be instituted.

*Empire Timbers.*—Representatives of the Committee are giving careful attention to a proposed questionnaire regarding the value of Empire Timbers for use in building, decoration or furniture, which is proposed to be submitted by the Empire Marketing Board to architects known to have considerable experience of their uses. The Committee sincerely hope that all members consulted will support the enquiry with their very valued observations, and would be glad to receive the names of members who have useful knowledge to impart in this way.

*Dampness in Houses.*—The Sub-Committee's Report on their investigation into the causes and prevention of dampness in houses received the approval of the Council, and its subsequent publication was very fully and favourably received by the lay and technical press. Copies of the Report, which was published in the JOURNAL, are available, price 6d.

*Smoke Abatement.*—The Sub-Committee's final Report and practical suggestions, arising out of a consideration of recent legislation on the subject has been received, approved, and has been published in the JOURNAL and in pamphlet form, price 1s. a copy.

*Institution of Electrical Engineers.*—The Institution of Electrical Engineers drew the Committee's attention to the importance of their Regulations for the wiring of Electrical Installations. On attention being drawn to Mr. Waldram's paper on the subject in the JOURNAL of 19 October 1929, which was published with the Committee's concurrence, they expressed their satisfaction and appreciation.

*Telephone Development Association.*—The Telephone Development Association requested the Committee's collaboration in producing a booklet which would not only assist in popularising the use of House Telephones but make suggestions for their more thoughtful installation on practical and artistic grounds. It is now understood that the General Post Office have been considering for some time the production of a Departmental Booklet on the subject, so that further consideration of the Telephone Development Association's proposal has been deferred.

*Effect of Frost on Plumbing.*—The destructive effects of last winter's abnormal frosts on plumbing drew special attention to the necessity of considering the best means of prevention of damage, having regard to reasonable initial expenditure, and the best general advice for action during excessively frosty weather. Mr. Digby Solomon and Mr. Godfrey Page communicated with the Committee, and a special Sub-Committee was appointed to consider and report on the matter. An interim report suggested the advisability of conferring with various other interested bodies, and a Conference was subsequently arranged. This Conference have now produced a Report which will be considered by the Committee with a view to publication as soon as possible.

*Electric Power Stations in the Metropolis.*—Members will be well aware of the action taken by the Council through the President and otherwise with regard to the grave danger to Public Health and on Architectural grounds in the absence of assurances that the products of combustion generated in such stations can be dealt with satisfactorily. It is gratifying at least to note that every effort to eliminate these dangers has been promised, and the Committee can be relied upon to persist in demanding reasonable information and assurances.

*Washing of Stone Buildings.*—Arrangements for the publication of an article by Mr. J. Allen Howe in the JOURNAL on this subject were made, and the article was published in the JOURNAL of 9 November 1929.

*Discolouration of White Lead Paint.*—Cases of discolouration have been reported by the London Association of Master Decorators. The Committee have published a note in the JOURNAL asking members who have experienced difficulty to communicate with the Association.

*The Architectural Association's Materials Bureau.*—The attention of members is drawn to this Bureau, which has an up-to-date collection of proprietary and other materials of interest, access to which is freely and generously offered to non-members of the Association.



*Sessional Papers.*—Suggestions for future Sessional Papers on matters of scientific interest have been considered and recommendations made to the Council.

*Lectures for Architects in Practice.*—The attendance of members at recent lectures arranged by the Committee was so disappointing that it is generally a matter for consideration whether such subjects should not be dealt with solely through the medium of the JOURNAL.

*Fifth International Congress of Building and Public Works Contractors, London, May 1930.*—Representatives of the Committee have been recommended to the Council as Delegates to this Congress.

*The Various Industries (Silicosis) Scheme, 1928.*—Mr. Creswell's notes on the Home Office Order 975, written at the Committee's request, were published in the JOURNAL of 29 June 1929.

*Queries and Replies.*—A system is now in operation whereby members having specialised knowledge reply to queries where the information is not such as is generally available in text books. Matters of general or particular interest are reproduced in the JOURNAL without the publication of the enquirer's name. Spare copies of the information thus provided can be obtained on request, and the subject matter will be carefully indexed each year for reference purposes.

*Science Notes.*—The Literature Standing Committee have agreed to set aside space in the JOURNAL for brief notes on matters of scientific interest not of sufficient importance for a special article, and to index them separately at the end of each year for easy reference.

*Scientific Information.*—New members are requested to note that the collection, collation and dissemination of information are the aims of the Committee, and it is hoped that they will collaborate by providing statements of interesting problems, solved or unsolved, for their guidance or consideration.

## REPORT OF THE ARCHITECTS' AND BUILDERS' JOINT CONSULTATION BOARD

The present members of the Board are :—

Mr. Herbert A. Welch (Chairman), Mr. Henry V. Ashley, Mr. Matthew J. Dawson and Mr. G. E. S. Streatfeild, representing the Royal Institute of British Architects, and Sir Stephen Eaten, O.B.E., J.P. (Vice-Chairman), Mr. A. H. Adamson, Mr. E. W. King, Mr. F. Thorne and Sir J. Walker Smith, representing the National Federation of Building Trades Employers.

The Board was established in 1925 and under its constitution may consider and report upon matters which may be referred to it, such as questions which create or tend to create friction between the various organisations connected with the building industry; changes of policy; procedure or methods current in the industry; technical questions affecting the industry, such as the provisions of a properly trained personnel and the allocation of classes of work so as to avoid demarcation disputes; the better selection of materials; and the consideration of Government legislative proposals with special reference to questions of production and cost.

During the period under review the following matters have been considered and recommendations made to the appropriate bodies :—

The Increasing Use of Imported Joinery.

Awards for Craftsmen.

The Inclusion in Bills of Quantities of Items of Street Work.

## REPORT OF THE ARCHITECTS' AND OPERATIVES' JOINT CONSULTATION BOARD

The Board was established in June 1926 for the purpose of considering and reporting upon matters such as craftsmanship, education, apprenticeship, the question of interesting workmen in the design and planning of buildings, and upon other questions mutually affecting the interests of architects and building operatives (apart from the question of wage rates).



The Board consists of four architects appointed by the Council of the Royal Institute of British Architects, and five representatives of the National Federation of Building Trades Operatives. The architect-members are Mr. Herbert A. Welch (Chairman), Mr. Henry V. Ashley, Mr. Matthew J. Dawson, and Mr. G. E. S. Streatfeild (Joint Hon. Secretary). The representatives of the National Federation of Building Trades Operatives are Mr. Thomas Barron (Vice-Chairman), Mr. George Elmer, Mr. G. Hicks, Mr. J. W. Stephenson, and Mr. R. Coppock (Joint Hon. Secretary).

*Apprenticeship.*—The questions of apprenticeship and the training of craftsmen continue to receive the careful consideration of the Board, who are at present reviewing the systems in force in some of the other European countries. The Board hope in the near future to extend their activities by arranging a joint meeting with the Architects' and Builders' Consultation Board at which this matter can be fully discussed.

#### *Awards for Craftsmen.*

The Board have given their cordial approval to the proposal, that a scheme should be formulated for making awards to craftsmen on the lines of that in operation in the United States.

*Council of Enquiry into the Building Industry.*—The Board are following with close interest the work of the Council of Enquiry into the Building Industry of which Lord Amulree is Chairman and upon which architects, master-builders, operatives and surveyors are represented.

## REPORT OF THE COMPETITIONS COMMITTEE

Since the publication of the last Annual Report the Committee have met on five occasions.

The Members of the Committee for the present Session are :—

Mr. Henry V. Ashley.  
Mr. Robert Atkinson.  
Mr. H. Chalton Bradshaw.  
Mr. L. H. Bucknell.  
Lt.-Col. H. P. Cart de Lafontaine.  
Mr. C. Cowles-Voysey.  
Mr. T. Lawrence Dale.  
Mr. C. Ernest Elcock.  
Sir Banister Fletcher.  
Mr. E. Vincent Harris.

Mr. P. D. Hepworth.  
Mr. Arthur Keen.  
Mr. Sydney D. Kitson.  
Mr. H. V. Lanchester.  
Mr. F. Winton Newman.  
Mr. T. Talliesin Rees.  
Mr. Howard Robertson.  
Mr. Percy Thomas.  
Mr. E. Berry Webber.  
Mr. Herbert A. Welch.

Mr. C. Ernest Elcock and Mr. C. Cowles-Voysey were appointed Chairman and Hon. Secretary respectively.

*Competitions dealt with.*—During the period under review the Committee have dealt with 44 competitions.

- (1) In 24 cases the conditions have been satisfactory.
- (2) In 9 cases negotiations with promoters have resulted in the amendment of the conditions, and the competitions have been held with the approval of the R.I.B.A.
- (3) In 8 cases promoters have refused to amend the conditions and the veto of these competitions has been advised.
- (4) In 2 cases negotiations with the promoters are still proceeding.
- (5) In one case an irregular competition was brought to the Committee's notice too late for action to be taken.

The Committee again desire to point out that conditions for competitions are frequently received by the Committee at so late a date as to leave inadequate time for negotiation with the promoters with a view to the conditions being brought into accord with the R.I.B.A. Regulations.

It would be of great assistance to the Committee if members would realise the importance of forwarding at once copies of all conditions of competitions which are being promoted.

*R.I.B.A. Regulations.*—Since the publication of the last Annual Report all the Allied Societies in Great Britain and Ireland have notified their approval of the Committee's recommendations for the amendment of the R.I.B.A. Regulations, which recommendations had previously been approved by the Council and General Body of Members.



*Improvement and Layout Scheme Competitions.*—Several competitions have been promoted recently by important Municipal Authorities for improvement and layout schemes, and in these cases the Committee have agreed to certain modifications of the conditions to meet the particular circumstances of each case.

A Sub-Committee has been appointed to consider the possibility of drawing up a standard scale of fees for Assessors and scale of premiums in connection with competitions of this nature.

*Directions to Assessors and Architectural Acoustics.*—After careful consideration of the suggestion that special directions should be given to Assessors regarding acoustic requirements in particular types of buildings, the Committee decided that it would be inadvisable to add any clauses to the "Directions to Assessors" for this purpose, as such a course might have a tendency to limit the judgment of the Assessor on the larger issues involved.

*Limited Competitions.*—The Committee desire to call the attention of members to the notice on this subject which was published in the JOURNALS of 7 and 21 December 1929.

*Competition for New R.I.B.A. Building.*—At the request of the Council, the Committee have carefully considered and advised the Council upon the procedure to be adopted in connection with the competition for the new premises of the R.I.B.A. in Portland Place.

*Irregular Competitions and the Local Press.*—In view of the lack of understanding on the part of the general public of the aims and purposes of the R.I.B.A. Regulations, it has been decided, in the case of irregular competitions where negotiations with the promoters prove abortive and it becomes necessary to veto the competitions, that copies of the correspondence with the promoters shall be sent to the local press.

*Competitions and the Planning of State Buildings.*—At the request of the Committee, the Chairman wrote to *The Times* on this subject, and his letter was published in the issue of 19 February 1930. A very helpful leading article was published in the same issue strongly supporting the views expressed by the Chairman.

## REPORT OF THE LONDON BUILDING ACTS COMMITTEE

The members appointed by the Council are :—

THE PRESIDENT (ex-officio).  
THE HON. SECRETARY (ex-officio).  
MR. LOUIS BLANC.  
MR. ARTHUR CROW.  
MR. W. R. DAVIDGE.  
MR. MATT. DAWSON.  
MR. WILLIAM G. HUNT.

MR. E. C. P. MONSON.  
MR. H. D. SEARLES-WOOD.  
MR. DIGBY L. SOLOMON, B.Sc.Lond.  
SIR HENRY TANNER, C.B., I.S.O.  
MR. MADRICE E. WEIR, D.S.O., M.C.  
MR. W. HENRY WHITE.

The following additional members have accepted a special invitation of the Council to join the Committee :—Mr. William Hunt, L.C.C., and Mr. W. Campbell Jones.

Mr. H. D. Searles-Wood was elected Chairman.

Mr. Louis Blanc, Hon. Secretary.

The work of this Committee has now extended over a period of ten years, and in that time the whole of the London Building Acts have been reviewed, and recommendations made.

These recommendations were published by the Institute, in the form of a report in 1926, and a copy was forwarded to the London County Council.

The publication also included the views of the Council of the Institute on Mr. Topham Forrest's Report, on the Construction and Control of Buildings in America.

At this date no material concessions or amendments have been made by the L.C.C. Further steps have been taken to place the views of this Institute before them, and recent correspondence in which the urgency of the items was specially noted, indicates that definite conclusions have not yet been arrived at.

Various regulations of the L.C.C. controlling the construction of buildings and not readily accessible



to members, were recently published in the JOURNAL and it is proposed to continue this practice as occasion arises.

Considerable interest in the reform of the London Building Acts is being taken by other interested bodies, and this Committee has from time to time been able to co-operate usefully with them.

The work of the Committee is still proceeding.

## REPORT OF THE R.I.B.A. REGISTRATION COMMITTEE

The Committee regrets that, owing to pressure of other engagements, Mr. Henry M. Fletcher and Mr. Howard Robertson, the latter an original member, have retired. In their places the Council has appointed Mr. E. Bertram Kirby and Mr. L. Sylvester Sullivan, and the Committee has been strengthened by the appointment of two representatives of the Association of Architects, Surveyors and Technical Assistants, viz., Mr. L. A. F. Ireland and Mr. V. Leslie Nash. Subject to these alterations the personnel of the Committee remains as originally constituted.

Early in the year the Committee formulated a propaganda programme designed to secure the support of Parliamentary candidates to the principles of the Architects' Registration Bill in the event of their being successful at the General Election. With the assistance of the Allied Societies many promises of support were secured, and those candidates who were returned to Parliament were reminded of their undertakings and were asked to ballot for the Bill, but on this occasion the supporters of the Bill were not successful in securing a favourable place in the ballot. In these circumstances Col. T. C. Moore, M.P., who did so much to secure the second reading of the 1927 Bill, kindly consented to introduce the 1929 Bill which was presented by him on 23 December 1929, supported by Sir George Courthope, Mr. Runciman, Mr. Knight, Sir Nicholas Grattan-Doyle, Mr. Birkett, Mr. Tillet, Mr. David Grenfell and Sir Robert Gower.

The Bill, which is similar to that which passed the House of Lords in December 1928, has been set down for second reading on several occasions. The Measure is now in the hands of Col. Moore, awaiting a favourable opportunity for second reading, and all arrangements for securing further support when the time comes, are made.

The Committee is greatly indebted to the Allied Societies for their assistance in the propaganda and to those Members of Parliament who are giving the Measure their support, and in particular to Col. T. C. Moore, who is untiring in his efforts to secure the further progress of the Measure.

## REPORT OF THE SALARIED MEMBERS COMMITTEE

Since the publication of the last Annual Report the Committee have held five meetings.

The members of the Committee for the present Session are :

Mr. John Barry.  
Mr. W. E. Brooks.  
Mr. H. A. Crouch.  
Mr. W. T. Curtis.  
Mr. A. J. Clifford Ewen.  
Mr. J. Grieve.  
Mr. E. Stanley Hall.  
Mr. William H. Hamlyn.  
Mr. P. K. Hanson.

Mr. L. A. F. Ireland.  
Mr. H. V. Lanchester.  
Mr. Charles McLachlan.  
Mr. F. Winton Newman.  
Capt. A. Seymour Reeves.  
Mr. J. Douglas Scott.  
Mr. J. Alan Slater.  
Mr. Charles Woodward.  
Mr. F. R. Yerbury.

The Officers of the Committee were elected as follows :—

Chairman : Mr. H. V. Lanchester.  
Vice-Chairman : Mr. Charles Woodward.  
Hon. Secretary : Mr. William H. Hamlyn.

*Salaried Appointments Overseas.*—On the recommendation of the Committee a notice has recently been inserted in the JOURNAL advising members who are contemplating applying for appointments.



overseas to write to the Secretary R.I.B.A. for information respecting conditions of employment, cost of living, climatic conditions, etc.

The Committee have made extensive inquiries on these subjects from members in all parts of the world and have collected information that will be of the greatest use. Enquiries for this information have already been dealt with and the members concerned have benefited greatly by the advice given.

*Salaried Members Committees of Allied Societies.*—The views of the Committee have been brought before the Allied Societies Conference, with the result that each Allied Society has been requested to consider the desirability of setting up a Committee to look after the interests of salaried members. It is gratifying to note that in some cases such Committees have already been formed. The Salaried Members Committee intend to keep in touch with all the Allied Societies on this matter, and hope that further Committees will be set up in due course.

*Memorandum on the State of the Profession.*—A memorandum on this subject has been prepared and is now being considered by the Council. The Committee have asked for a copy of the Memorandum to be sent to every member of the Institute. It is felt that the circulation of this Memorandum will inevitably lead to a better understanding of the relation between "salaried" and "practising" members and this, in its turn, will greatly facilitate the work of the Committee.

*Report on Status and Salaries.*—The Committee have prepared a report on the status and salaries of architects employed by Government Departments, County and Municipal Authorities, etc. This report is now being considered by the Council.

## REPORT OF THE SPECIAL COMMITTEE ON THE SCALE OF CHARGES

This Committee were originally appointed by the Council in April, 1927, and were re-appointed for the Session 1929-1930 as follows:—

Mr. Henry V. Ashley,  
Mr. Francis Jones,  
Mr. E. Bertram Kirby,  
Mr. J. Douglas Scott (Hon. Secretary).

Mr. W. Gillbee Scott,  
Mr. W. E. Watson (Chairman),  
Mr. Maurice E. Webb.

The function of the Committee was to consider the advisability of simplifying and clarifying the existing Conditions of Engagement and Scale as a whole, including the Scale for Housing Work.

The amended document as approved by the Council was informally discussed at Business Meetings on 10 June and 15 July 1929, and in the light of comments made and also those received from members, the document has been further amended and forwarded to the Council for consideration.

A Special Sub-Committee consisting of Mr. E. Bertram Kirby, Mr. J. Douglas Scott, Mr. W. Gillbee Scott, and Mr. W. E. Watson were re-appointed by the Council to confer with representatives of the Ministry of Health on the question of fees for Specialists and Consultants. This Sub-Committee, who in July last were combined with the Special Committee on the Scale of Charges, have had informal discussions, at the request of the Practice Standing Committee, with representatives of the Association of Consulting Engineers and the Institution of Structural Engineers. The representatives of the former body submitted for consideration, revised conditions of engagement, scale of remuneration, and code of professional practice for consulting engineers.

It is hoped to arrange a further joint conference in the near future to consider a reasoned statement which has been prepared by the Sub-Committee analysing the various difficulties and complications which arise in connection with modern conditions of practice, etc.

## REPORT OF THE THAMES BRIDGES CONFERENCE

Representing the following bodies:—

The Royal Academy,  
The Royal Institute of British Architects,  
The Surveyors' Institution,  
The Town Planning Institute,  
The London Society.

The Architectural Association,  
The Society for the Protection of Ancient Buildings,  
The Architecture Club,  
and Representative Engineers.



The efforts of the Conference throughout the year have been directed towards securing a satisfactory layout of the proposed Charing Cross Bridge and its approaches. The plan put before the London County Council in July 1929 for final adoption still contained the chief defects of the former plan. Both the London County Council and the Southern Railway had been approached with a request to leave the way open for subsequent amendment of the scheme but to no purpose, and this plan was accepted by the London County Council and became the basis of the Bill presented to Parliament.

A deputation waited on the Minister of Transport and the Chairman of the Improvements Committee on 23 December and criticised the official scheme very severely from all points of view. The deputation was introduced by Mr. Stanley Hall in the absence of the President on the Continent, and addresses were made by the Chairman on behalf of the Conference, Sir Reginald Blomfield on behalf of the Royal Academy, and Lord Crawford on behalf of the London Society. Mr. Morrison and Sir Percy Simmons replied but gave no hope of material alteration in the scheme.

A carefully prepared statement was then drawn up setting out in detail under a number of headings the defects of the scheme. This statement was printed, together with a plan, and was sent to all Members of Parliament and to the Press and the Public Authorities concerned. Opposition was carried on further by means of articles and letters in the Press including several letters from the President of the Institute; addresses to a group of M.P.'s were given by the Chairman and Sir Reginald Blomfield, and several lectures on the subject were delivered. Many individual Members of Parliament were approached, and letters were sent to the Allied Societies asking them to approach the Members representing their districts.

The discussion in the House took place on 19 February with the result that the official scheme was adopted by a large majority and sent to a special committee for consideration.

On 3 April the following resolution was communicated to the Press:—

"In view of the fact that the Charing Cross Bridge Bill has obtained a second reading and cannot, in Committee, be substantially improved, the Thames Bridges Conference desires to reaffirm, for reasons given at length in a recently published statement, its opposition to a radically imperfect scheme."

## REPORT OF THE TOWN PLANNING AND HOUSING COMMITTEE

Since the publication of the last Annual Report, the Town Planning and Housing Committee have held two meetings, a considerable part of the work having been delegated to Sub-Committees, who have met frequently.

The following members were appointed by the Council for the Session 1929-30:—

The President,  
The Hon. Secretary,  
Prof. Patrick Abercrombie,  
Prof. S. D. Adshad,  
Mr. L. H. Bucknell,  
Mr. Arthur Crow,  
Mr. W. R. Darridge,  
Mr. F. M. Elgood,  
Mr. P. M. Fraser,  
Mr. W. A. Harvey,  
Mr. W. Haywood.

Mr. H. V. Lanchester,  
Mr. T. Alwyn Lloyd,  
Sir Henry Maybury,  
Mr. D. Barclay Niven,  
Mr. Herbert Shephard,  
Mr. Louis de Soissons,  
Mr. G. E. S. Streetfield,  
Mr. W. Harding Thompson,  
Mr. C. F. Ward,  
Mr. Edward Warren.

On the recommendation of the Committee the Council have appointed Colonel C. H. Bressey, of the Ministry of Transport, as a member of the Committee.

The Officers of the Committee were elected as follows:—

Chairman, Mr. William Haywood, Joint Hon. Secretaries, Mr. W. Harding Thompson,  
Vice-Chairmen, Prof. S. D. Adshad, Mr. H. V. Lanchester, Mr. Percival M. Fraser.

1. *Control of Elevations*.—As a result of the British Architects' Conference at York in 1929, the Committee, in collaboration with the Art Standing Committee, were instructed to consider and report on the proposals contained in Mr. William Haywood's paper.

A report on the Control of Elevations has been prepared by a joint sub-committee, appointed by



the constituent major committees, which sets forth certain recommendations to the Council. The Committee have kept in close touch with the Council for the Preservation of Rural England.

2. *International Congress of Building and Public Works, London, May 1930.*—Mr. Arthur Crow has been appointed to represent the Committee as an R.I.B.A. delegate to the forthcoming Congress.

3. *Education in Regional Planning.*—Arising from recent correspondence in *The Times*, a sub-committee has been appointed to consider the question of Education for Town and Regional Planning, and to draw up an outline programme for a Conference on the subject to submit to the Council. It is then hoped that a Conference may be held to which all the educational authorities and others interested in the subject may be called, with a view to co-ordinating the work of schools throughout the country now engaged in teaching Town and Regional Planning, Landscape Architecture and kindred subjects, also to consider the financial needs of this branch of education.

4. *London Squares.*—In accordance with the policy of recent years, the Committee have been kept in close touch with any building developments on London Squares and Enclosures.

(a) A scheme for 12 houses is now being carried out on part of Trafalgar Square, Chelsea, but this is in accordance with the owners' intentions as stated in evidence before the recent Royal Commission.

(b) Works are now in progress in Soho Square, but in reply to an inquiry the Committee has been informed by the Charing Cross Electricity Supply Co., Ltd., that there will be no building visible above ground; the work is for an extension of an existing underground chamber.

## THE FINANCES OF THE ROYAL INSTITUTE

The Statement of Accounts prepared by the Accountants for the year 1929 shows satisfactory results notwithstanding the reduction in the income over that of the previous year due to the new regulations with regard to Probationers' Registration.

This reduction in income was fully anticipated when the rough estimate was prepared, and it is gratifying to note that the latter bears favourable comparison with the statement of actual income and expenditure, the total realised income being more and the total expenditure less than was anticipated.

We budgeted for an income of £39,135, plus £1,000 entrance fees, and we actually received £39,665 5s. 11d., plus £894 12s. entrance fees. This amount includes the gross amount received from advertisements in publications, as shown in the separate account.

The actual expenditure amounted to £39,757 7s., as compared with an estimated expenditure of £39,941.

The surplus for the year, amounting to £802 10s. 11d., has been transferred to the New Premises Building Fund.

The past year has seen the completion of the negotiations\* for the acquisition of the unexpired interests in premises occupying the site in Portland Place upon which the new Headquarters for the R.I.B.A. will be erected; and it is worthy of note that these intermediate interests (which, in accordance with our Building terms, we were bound to obtain) have been acquired at no greater cost to the Institute than would have been the case had they been purchased in the open market.

Since the close of the year the last remaining interest in No. 66 Portland Place has been acquired on equally favourable terms.

We are now receiving the rentals for those portions of the premises in Portland Place which are still let, and it is hoped that further income from this source will be obtained by short term lettings of the premises at present in hand.

The approval by the Privy Council to the Development Scheme proposals which were approved by the General Body last year is still awaited, and consequently the Estimate of Income and Expenditure for the current year appended to the Statement of Accounts is based on the existing constitution and membership. Provision has been made for the normal activities, with a due regard to strict economy wherever possible.

P. A. HOPKINS,

*Chairman of the Finance and House Committee.*

\*Full details with regard to the negotiations and terms arranged will be found in the R.I.B.A. JOURNAL for 13 April 1929.



## REPORT OF THE HONORARY AUDITORS

We have examined the books and checked them with the Ordinary and Trust Funds Accounts and vouchers for the year 1929, together with the various share and scrip Certificates—some held by the Institute in the Office Safe and others deposited with Bankers, of which latter we have had verification lists—and they were found to be in order and to agree with the Statement of Accounts prepared by the Chartered Accountants.

The Ordinary Income for the year amounted to £37,258 17s. 2d., as compared with £41,474 18s. 1d. plus £970 4s. 0d. Entrance Fees—not included in Revenue—for the previous year.

The reduction in Income in 1929 compared with 1928 is actually £1,885 4s. 2d., as the *net* amount received in 1929 from Advertisements in Publications is shown as being transferred from the separate account for these, whereas in 1928 the *gross* amount received was included in the accounts for that year.

Subscriptions and Contributions show a net increase of £255 5s. 1d. over previous years, the decrease of £334 1s. 9d. in Licentiate's subscriptions being more than compensated by increase in all other classes.

Revenue from Advertisements in *JOURNAL* and *Kalendar* is down £894 16s. 6d., and, deducting corresponding less cost of printing and commission, shows a net reduction of £563 19s. 9d. from the previous year. This seems fairly common just now and is due to present general depression.

Examination and other fees produced £2,822 18s. 6d. less than the previous year. Fees from Intermediate and Final examinations show an increase of £751 5s. 6d., but the other four classes total a reduction of £3,574 4s.—chief of which is the amount received for Probationers' Registration, showing a reduction of £3,500 14s. This, however, was anticipated in view of the abnormal number of entrants in 1928 who took advantage of registering as Probationers before the restriction with regard to Headmasters' Certificates came into operation at the end of that year.

Rents received from Tenants and use of Rooms and Galleries show an increase of £1,392 6s. 2d. Portland Place premises figure for the first time in the Accounts with rents received from tenants amounting to £1,533 13s. 8d.

Expenditure for the year amounted to £36,456 6s. 3d. plus £3,301 0s. 9d., being the cost of advertisements in publications shown in the separate account—making a total of £39,757 7s., compared with £38,062 8s. 1d. in the previous year, an excess of £1,694 18s. 11d.

Premises account shows an expenditure of £5,325 2s. 3d., as against £4,123 1s. 4d. in the previous year—an excess of £1,202 0s. 11d., mainly accounted for by the commitments arising from the acquisition of the Portland Place site. Fire and other Insurance is increased from £94 3s. 11d. to £134 10s. 7d., as—apart from insurances on the Portland Place premises—additional policies have been taken out against Burglary and for Exhibition Insurance.

Administration Expenses total £13,461 0s. 11d.—an increase of £1,308 16s. 8d. over the previous year—accounted for by increases in salaries and additional printing, etc., involved in putting forward the Development Scheme proposals.

The publication of the *JOURNAL* and *Kalendar* compared with 1928 cost £161 11s. 9d. less for *JOURNAL* and £148 7s. 6d. more for *Kalendar*, a net reduction on the two of £13 4s. 3d. The extra cost of *Kalendar* is explained by its larger size and a considerable increase in the number printed and circulated. Copies are now issued to all the larger Public Libraries in the United Kingdom and Ireland.

General Meetings, Exhibitions and Conferences account shows a net increase of £162 17s. 11d. over the previous year—the items for Annual Conference and Dinner being less and the excess being due to the Biennial Exhibition held in 1929.

The amount expended in Grants is increased over that for 1928 by £760 5s., necessitated by the first payment in connection with the R.I.B.A. Rome Scholarships in Architecture.

The payments made during 1929 for acquiring the site for the new premises in Portland Place amounted to £20,687 19s. 10d., as shown in the Balance Sheet. Part of this was provided by the amount standing to the credit of the new Premises Fund and the balance by arrangement with the Institute Bankers.

We are pleased to express our appreciation of the way in which the accounts are kept and to thank the staff for the courteous and lucid way in which they were presented to us.

E. J. W. HIDER [F.] *Honorary*  
ROBERT W. PITE [F.] *Auditors.*



## Income and Expenditure Account of Ordinary Funds for the Year ending 31st December 1929

Dr.	EXPENDITURE				INCOME				Cr.
	£	s.	d.		£	s.	d.		
<b>TO FINANCES—</b>					<b>BY SUBSCRIPTIONS AND CONTRIBUTIONS—</b>				
Rent—					Fellows .....	7988	11	0	
Conduit Street .....	52	0	0		Fellows' Arrears .....	141	15	0	
28, Bedford Square .....	175	0	0		Associates .....	1532	8	6	
Portland Place .....	389	3	3	846 14 8	Associates' Arrears .....	281	1	11	
Rates and Taxes—					Licentiates .....	5798	13	0	
Conduit Street .....	1884	8	6		Licentiates' Arrears .....	258	11	7	
28, Bedford Square .....	32	16	5		Reinstated Members .....	110	0	6	
Portland Place .....	225	11	8	1853 11 1	Students' Fees and Arrears .....	885	8	0	
Interest on Mortgage .....	1100	0	0		Subscribers .....	22	1	0	2298 1 0
Interest on Bank Overdraft .....	450	5	7	1553 5 7	<b>BY ENTRANCE FEES .....</b>				894 12 0
Gas, Heating and Electric Light—					<b>BY SURPLUS FROM ADVERTISEMENTS ACCOUNT .....</b>				5255 10 1
Conduit Street .....	976	8	0		<b>BY SALES OF PUBLICATIONS .....</b>				1007 7 8
Portland Place .....	10	10	10	380 18 10	<b>BY EXAMINATION AND OFFICE FEES—</b>				
Fuel—					Probationer's Registration .....	2209	4	0	
Conduit Street .....	58	8	0		Intermediate Examinations .....	1870	6	6	
Portland Place .....	1	12	0	62 15 0	Licentiates' Examination .....	30	15	0	
General Repairs—					Final Examination .....	1350	8	0	
Conduit Street .....	279	8	8		Town Planning Examination .....	1	1	0	
Portland Place .....	2	14	9	282 3 5	Statutory Examination .....	15	15	0	5580 10 6
Fire and Other Insurance—					<b>BY R.H.B.A. TRAVELLING AND USE OF ROOMS—</b>				
Conduit Street .....	184	10	7		Conduit Street .....	1050	0	0	
Portland Place .....	29	12	4	164 8 11	Portland Place .....	1033	13	8	2583 13 8
Housekeeping and Wages .....				491 0 4	Galleries .....	36	4	0	2619 18 2
Telephone—					<b>BY INTEREST ON DEPOSIT .....</b>				15 10 1
Conduit Street .....	88	10	2		<b>BY LIFE MEMBERSHIP—</b>				
Portland Place .....	6	19	3	20 9 5	Interest on Conversion Loan .....				9 15 7
<b>TO APPROPRIATION—</b>				4222 2 3	<b>BY R.I. BEDFORD SQUARE—</b>				
Scholar and Gratuities .....				8720 4 10	Interest on outstanding Balance of Pre-vious Money .....				164 2 1
Health and Unemployment Insurance .....				77 7 0					
Stamps .....				1210 11 1					
Pensions .....				252 10 0					
Staff Insurance and Pension Scheme .....				3160 0 3					
General Printing, Stationery, Stamps and Petty Expenses .....				40 18 0					
Annual Election Emoluments .....				13161 0 11					
<b>TO PUBLICATIONS—</b>									
Journal—									
Reporting .....				106 11 7					
Printing and Binding .....				2794 7 0					
Illustrations .....				302 17 0					
Postage and Carriage .....				1825 5 1					
Calendar—									
Printing and Binding .....				862 8 8					
Postage and Carriage .....				242 9 9					
<b>TO LIBRARY .....</b>				1095 14 0					
<b>TO TRAVELLING EXPENSES—</b>				425 0 0					
President .....				146 7 0					
Visiting Board .....				250 0 0					
Provincial Members .....				1907 9 5					
Conference of Teachers .....				1 12 0					
<b>TO GENERAL MEETINGS AND CONFERENCES—</b>				2500 10 2					
General Meetings and Discussions .....				688 8 10					
Annual Conference .....				200 14 11					
Annual Dinner .....				164 10 11					
Council Dinner (Guests) .....				170 10 0					
Advertisements .....				60 0 0					
<b>TO EXAMINATIONS AND PRIZES—</b>				3179 8 2					
Examiners' and Investigator's Fees .....				454 13 0					
Medals and Prizes .....				428 4 6					
Prize Travelling Tours .....				55 14 6					
Home Scholarship .....				50 14 0					
Examinations (Overseas) .....				725 13 11					
<b>*TO CONTRIBUTIONS TO ALLIED SOCIETIES .....</b>				1175 3 10					
<b>TO GRANTS—</b>				4028 12 7					
British School at Rome .....				750 0 0					
British School at Rome (Faculty of Archaeology) .....				3 2 0					
Architects' Benevolent Society .....				100 0 0					
Architectural Association .....				100 0 0					
British Engineering Standards Association .....				100 0 0					
Council for the Preservation of Rural England .....				100 0 0					
Europe-British Union of Architects .....				50 0 0					
Royal West of England Academy School of Architecture .....				50 0 0					
Durham Institute of Architects (Liberaries of Allied Societies) .....				25 0 0					
<b>Carried forward .....</b>				4328 3 0	<b>Carried forward .....</b>				23728 17 3

\* By-law 23 provides that "The Royal Institute shall, in each year contribute to any Non-Metropolitan Allied Society such proportion not exceeding one-third as the Council may from time to time determine of the annual subscription paid to the Royal Institute by each member thereof who is also a member of such Society, provided such member have an office or study in the district of such Society; but in no event shall such contribution apply to the case of any one member to more than one Allied Society."



Dr.	INCOME AND EXPENDITURE ACCOUNT OF ORDINARY FUNDS—continued.						Cr.					
EXPENDITURE		£	s.	d.	£	s.	d.	INCOME		£	s.	d.
Brought forward		1329	2	0	1330	10	0	Brought forward		27253	17	2
TO GRANTS—continued.												
London Society (St. Paul's Hill Pavilion)		25	0	0								
Ralph Knott Memorial Fund		25	0	0								
School of Architecture, University of Sheffield (Recognised School Libraries)		25	0	0								
Cister Society of Architects (Library of Allied Societies)		25	0	0								
Worcester College, Oxford		25	0	0								
Berks, Bucks and Oxon Architectural Association (Library of Allied Societies)		20	0	0								
Indian Institute of Architects (Library of Allied Societies)		15	0	0								
Sheffield, South Yorkshire and District Society of Architects and Surveyors (Library of Allied Societies)		15	0	0								
Welsh School of Architecture (Recognised School Libraries)		15	0	0								
Birmingham School of Architecture (Recognised School Libraries)		10	0	0								
British Institute in Paris		5	0	0								
British School at Athens		5	0	0								
Society for the Protection of Ancient Buildings (Lymington Hall Survey)												
Howard Memorial Fund												
International Federation for Housing and Town Planning		5	0	0								
National Association of Water Users		4	0	0								
Royal British Colonial Society of Artists		4	0	0								
National Book Council		3	10	0								
Empire Forestry Association		2	0	0								
British School of Archaeology in Egypt		1	0	0								
					1354	4	0					
TO LIBRARY CATALOGUE					230	10	0					
TO MISCELLANEOUS EXPENSES—												
Legal and Accountants		307	16	4								
Registration		300	12	2								
London Architecture Medal		55	12	2								
Conditions of Contract Conference		52	10	0								
President's Portrait		225	0	0								
Sundries		324	8	11								
					1450	1	1					
					802	10	11					
TO SURPLUS FOR THE YEAR												
					65753	17	2					

## Advertisements in Publications Account for the Year ending 31st December 1929.

EXPENDITURE.			INCOME.		
TO ADVERTISEMENTS IN PUBLICATIONS—			BY ADVERTISEMENTS—		
Journal—			Journal		
Printing	9571	9 4	Calendar	5981	9 10
Advertisement Department Expenses	71	13 0		692	11 0
Advertisement Commission	1570	0 4			
Calendar—					
Printing	111	19 3			
Advertisement Commission and Expenses	170	12 10			
		257 12 1			
		2835 19 1			
Surplus transferred to Ordinary Funds Account					
BATTERY, SORE & Co.,					
		67100 10 10			22328 19 0

Examined with the vouchers and found to be correct, 28 March 1930 { E. J. W. HIGGS (P.) } Hon. Auditors.

Dr.		Balance Sheet of Ordinary Funds, 31st December 1929.						Cr.	
		LIABILITIES			ASSETS				
		£	s.	d.	£	s.	d.		
TO SURPLUS CREDITORS—									
Sundry		2110	5	0					
Mortgage Interest		30	8	2					
Rent		120	19	1					
					2160	7	4		
Mortgage on Freehold and Leasehold Property at 5½ per cent.					29000	0	0		
Subscriptions received in advance—									
Fellows		104	8	6					
Associates		225	18	0					
Licentiates		92	11	0					
Students		43	1	0					
					465	18	6		
Academy Committee Fund					50	0	0		
Life Membership Fund at 31st December, 1928		100	10	0					
Compositions received during 1929		190	4	0					
					320	14	0		
Lloyds Bank Overdraft					18555	14	2		
New Promises Building Fund, at 31st December, 1929		8004	7	2					
Surplus for the year 1929		802	10	11					
Dividends and Interest received		82	15	3					
Profit on Realisation of Investments		57	8	2					
					8942	10	6		
Surplus of Assets over Liabilities (Subject to valuation of promises and realisation of Debtors and Subscriptions in arrears)					8067	0	11		
BATTERY, SORE & CO.,					612508	14	6		
Chartered Accountants.									

Examined with the vouchers and found to be correct, 28 March 1930 { E. J. W. HIGGS (P.) } Hon. Auditors.



## Revenue Account of Trust Funds for the Year ended 31st December 1929.

Dr.		Cr.	
<b>ASHFIELD FUND—</b>			
To Price awarded to J. T. Castle (J.)	£ 8 d.	By Balance from last Account	£ 8 d.
To Income Tax paid on Untaxed Interest	10 0 0	By Dividends and Interest Received	24 2 9
To Balance carried forward	90 10 3		22 13 6
	<u>107 1 3</u>		<u>107 1 3</u>
<b>ANDERSON AND WILKIN FUND—</b>			
To Amounts paid to Edward Ballough for J. E. Smith—	£ 4 d.	By Balance from last Account	£ 4 d.
1928/29 220 0 0		By Amount due from Ordinary Fund	71 15 3
1929/30 102 0 0		By Dividends and Interest Received	4 0 0
To Income Tax paid on Untaxed Interest	140 0 0		64 9 10
To Balance carried forward	0 0 0		
	<u>140 0 0</u>		<u>140 0 0</u>
<b>ASTOR'S CATER LEXINGTON—</b>			
To Purchase of 400 14s. 4d. 3½% Conversion Loan	£ 4 d.	By Balance from last Account	£ 4 d.
To Income Tax paid on Untaxed Interest	75 0 0	By Dividends and Interest Received	75 11 0
To Balance carried forward	0 0 0		90 8 4
	<u>75 0 0</u>		<u>144 17 4</u>
<b>BRECHINIA DAWSON BEQUEST—</b>			
To Amount paid to G. H. Beveridge	£ 4 d.	By Balance from last Account	£ 4 d.
To Amount paid to W. G. Hunt	25 0 0	By Dividends and Interest Received	206 14 3
To Amount paid to Mrs C. W. Hunter	25 0 0		256 12 3
To Amount paid to L. A. Chubbett	25 0 0		
To Amount paid to John Hughes	50 0 0		
To Amount paid to J. B. Ward	122 0 0		
To Amount paid to E. J. M. Ormerod	50 0 0		
To Income Tax paid on Untaxed Interest	0 0 0		
To Balance carried forward	271 15 6		
	<u>543 7 1</u>		<u>543 7 1</u>
<b>DONALDSON TESTAMENTARY FUND—</b>			
To Cost of Medal	£ 4 d.	By Balance from last Account	£ 4 d.
To Balance carried forward	1 15 0	By Dividends and Interest Received	3 13 0
	<u>1 15 0</u>		<u>6 0 2</u>
<b>GOOWIE AND WIMPERLE BEQUEST—</b>			
To Amount paid to Allan G. Wyon (Medal)	£ 4 d.	By Balance from last Account—	£ 4 d.
To Amount paid to Hope Haguel (J. A.)	1 12 10 0	Goowie Bequest	200 7 2
To Amount paid to J. Murray Martin (F.)	84 0 0	Wimperle Bequest	80 0 2
To Income Tax paid on Untaxed Interest	2 1 0		
To Balance carried forward	11 15 8	By Dividends and Interest Received	100 13 11
	<u>266 10 6</u>		<u>200 10 4</u>
<b>GRISWILL BEQUEST—</b>			
To Balance carried forward	£ 4 d.	By Balance from last Account	£ 4 d.
	<u>15 10 4</u>	By Dividends and Interest Received	1 0 0
			<u>15 10 4</u>
<b>G. W. HUNT BEQUEST—</b>			
To Purchase of 41,142 17s. 5d. 2½% Conversion Inscribed Stock	£ 4 d.	By Balance from last Account	£ 4 d.
To Income Tax paid on Untaxed Interest	617 19 2	By Dividends and Interest Received	235 19 2
To Balance carried forward	0 0 0		50 12 3
	<u>617 19 2</u>		<u>688 11 6</u>
<b>MAINTENANCE SCHOLARSHIP FUND—</b>			
To Amount paid to E. L. W. Jarvis	£ 4 d.	By Balance from last Account	£ 4 d.
To Amount paid to E. J. Hay	65 12 4	By Donations Received	219 28 7
To Amount paid to H. Jackson	65 0 0	By Dividends and Interest Received	226 1 2
To Amount paid to E. J. White	94 18 4		45 19 8
To Amount paid to A. Brown	50 0 0		
To Amount paid to E. J. Hartley	65 13 4		
To Amount paid to J. F. D. Wyse	101 0 0		
To Amount paid to G. G. Laidlaw	25 0 0		
To Amount paid to H. Bennett	25 0 0		
To Amount paid to F. W. Wright	25 0 0		
To Amount paid to Simpson & Co. Ltd.	1 0 0		
To Income Tax paid on Untaxed Interest	0 0 0		
To Balance carried forward	221 12 4		
	<u>700 19 2</u>		<u>700 19 2</u>



Dr.		REVENUE ACCOUNT OF TRUST FUNDS—continued.		Cr.	
<b>JAMES NEALE HERRARY—</b>					
To Balance carried forward	£ s. d.	By Balance from last Account	£ s. d.	17 18 8	
	55 15 10	By Interest Received	27 17 2		
			55 15 10		
<b>OWEN JONES SCHOLARSHIP—</b>					
To Purchase of £257 14s. 3d. 3½% Conversion Loan at 77½	£ s. d.	By Balance from Last Account	£ s. d.	250 10 11	
To Amount paid to Miss Ruth Ellis (A.)	200 0 0	By Dividends and Interest Received	125 8 9		
To Income Tax paid on Untaxed Interest	34 0 0				
To Income Tax paid on Untaxed Interest	0 13 0				
To Balance carried forward	130 0 11				
	265 3 8				
<b>PROX MEMORIAL FUND—</b>					
To Amount paid to Allen H. Wynn	£ s. d.	By Balance from last Account	£ s. d.	265 3 8	
To Amount paid to H. D. Mathew (S.)	2 7 0	By Dividends and Interest Received	67 2 5		
To Amount paid to F. Murray Ashford (A.)	55 0 0		41 0 11		
To Income Tax paid on Untaxed Interest	25 0 0				
To Income Tax paid on Untaxed Interest	0 4 0				
To Balance carried forward	81 2 4				
	108 13 4				
<b>RAYON FELLOWSHIP—</b>					
To Amounts paid to A. R. Hartman (A.)	£ s. d.	By Balance from last Account	£ s. d.	108 13 4	
To Income Tax paid on Untaxed Interest	20 0 0	By Dividends and Interest Received	50 0 2		
To Income Tax paid on Untaxed Interest	0 7 0		33 7 2		
To Balance carried forward	73 0 4				
	81 10 4				
<b>TITE LEGACY FUND—</b>					
To Amount paid to Wm. Crabtree (S.)	£ s. d.	By Balance from last Account	£ s. d.	81 10 4	
To Amount paid to Patrick McNeil (A.)	23 0 0	By Amount due from Ordinary Fund	50 0 0		
To Income Tax paid on Untaxed Interest	23 0 0	By Dividends and Interest Received	30 2 8		
To Income Tax paid on Untaxed Interest	0 5 0				
To Balance carried forward	44 10 4				
	100 15 8				
<b>VICTORY SCHOLARSHIP FUND—</b>					
To Amount paid to Cecil Thomas	£ s. d.	By Balance from last Account	£ s. d.	100 15 8	
To Amount paid to Miss Betty Scott (S.)	2 12 6	By Dividends and Interest Received	92 18 2		
To Amount paid to Miss Betty Scott (S.)	150 0 0		82 0 8		
To Balance carried forward	22 0 4				
	175 18 10				
<b>A. C. BROWN TRAVELLING STUDENTSHIP AND MEDAL CONFERENCE—</b>					
To Cost of Medal	£ s. d.	By Balance from last Account—	£ s. d.	175 18 10	
To Amount paid to Frank Scotland (1929 Student)	13 2 1	Medal Competition	£ s. d.		
To Amount paid to Frank Scotland (1929 Student)	200 0 0	Scholarship Fund	302 10 4		
To Amount paid to E. W. Lewis (A.) (1927 Student)	50 0 0		301 0 10		
To Income Tax paid on Untaxed Interest	0 8 2	By Dividends and Interest Received	118 13 1		
To Income Tax paid on Untaxed Interest	0 2 3				
To Balance carried forward	242 2 3				
	697 12 11				
<b>ASTORPHONE COMPETITION—</b>					
To Amount paid to D. H. McManus	£ s. d.	By Balance from last Account	£ s. d.	697 12 11	
To Amount paid to M. Hartland Thomas	62 10 0		157 4 0		
To Amount paid to L. C. S. Farmer	82 10 0				
To Amount paid to James Bourles and Sons, Ltd.	25 0 0				
To Income Tax paid on Untaxed Interest	0 3 0				
To Income Tax paid on Untaxed Interest	0 1 4				
To Balance carried forward	0 12 11				
	157 3 9				
<b>GARSON COMPETITION—</b>					
To Amount paid to Thomas Spencer	£ s. d.	By Balance from last Account	£ s. d.	157 3 9	
To Amount paid to Messrs. E. H. Newson and O. A. Bayne	550 0 0		303 1 1		
To Amount paid to Stanley Allison	70 0 0				
To Amount paid to H. H. Thackston	50 0 0				
To Amount paid to R. Hand and Son	23 0 0				
To Amount paid to James Bourles and Sons, Ltd.	2 4 0				
To Income Tax paid on Untaxed Interest	5 12 6				
To Income Tax paid on Untaxed Interest	0 14 0				
To Balance carried forward	0 9 11				
	303 1 1				
<b>HENRY JARVIS STUDENTSHIP ACCOUNT—</b>					
To Amounts paid to Henry Jarvis at Home for—	£ s. d.	By Balance from last Account	£ s. d.	303 1 1	
H. T. Dyer (1927 student)	125 0 0	By Amount received from Trustees	20 0 0		
H. W. E. White (A.) (1928 student)	250 0 0		275 0 0		
To Balance carried forward	25 0 0				
	600 0 0				
<b>SLEIGHT, ROSS &amp; Co.,</b>					
Chartered Accountants.					

Examined with the vouchers and found to be correct, 15 March 1930

E. J. W. HIGER (F.)	Hon. Auditors.
ROBERT W. PITT (F.)	



## Balance Sheet of Trust Funds, 31st December 1929.

Dr.	Balance Sheet of Trust Funds, 31st December 1929.				Ct.	
	Value, 31st December 1929.					
	£	s.	d.	£	s.	d.
<b>TO AMSTELL PRIZE FUND—</b>						
Capital, £205 1s. 8d. New South Wales 6% Inscribed Stock 1900/10 .....	205	19	8			
<i>Revenue Investments—</i>						
£78 8s. 11d. 4½% War Loan, 1925/45 .....	77	1	11			
£20 8s. War Loan, 1929/47 .....	20	1	0			
£20 4s. Funding Loan, 1900/90 .....	17	2	0			
£14 4s. 3½% Conversion Loan, 1901 .....	10	10	11			
Balance at Credit of Revenue Account .....	96	19	8			
				514	14	0
<b>TO ANDERSON AND WERN FUND (Board of Architectural Education)—</b>						
Capital—£504 18s. 4d. New South Wales 6% Inscribed Stock, 1900/40 .....	504	6	8			
£55 8s. New South Wales 4% Inscribed Stock, 1942/62 .....	42	11	2			
<i>Revenue Investments—</i>						
£192 18s. 3d. 4½% War Loan, 1925/45 .....	123	9	5			
£65 5s. War Loan, 1929/47 .....	60	3	3			
£41 18s. 6d. 4½% Consolidated Stock, 1937 .....	34	10	0			
£30 4s. Funding Loan, 1900/90 .....	25	12	0			
£725 London Midland and Scottish Railway 4% Guaranteed Stock .....	343	15	0			
Balance at Credit of Revenue Account .....	9	16	8			
				1119	4	8
<b>TO ASTOR CATER LEMLEY FUND—</b>						
Capital, London and North Eastern Railway—						
£188 4s. 1st Preference Stock .....	183	16	0			
£580 4s. 2nd Guaranteed Stock .....	474	14	0			
<i>Revenue Investments—</i>						
£137 15s. 7d. 4½% War Loan, 1925/45 .....	128	5	6			
£90 1s. 11d. 5% War Loan, 1929/47 .....	50	7	5			
£21 11s. 6s. Treasury Bonds, 1935/35 .....	31	17	0			
£200 13s. 10d. 4% Funding Loan, 1900/90 .....	171	11	10			
£72 9s. 4% Consolidated Stock, 1937 .....	60	2	8			
£367 1s. 11d. 3½% Conversion Loan, 1901 .....	272	11	5			
Balance at Credit of Revenue Account .....	60	16	4			
				1082	2	11
<b>TO ARCHIBALD DAWKIN REQUEST—</b>						
Capital—£11,026 17s. 9d. 2½% Omnia .....	5844	5	0			
<i>Revenue Investments—</i>						
£244 19s. 7d. 2½% Omnia .....	238	16	10			
£483 6s. 4d. London Midland and Scottish Railway 4% Guaranteed Stock .....	302	20	0			
Balance at Credit of Revenue Account .....	271	18	8			
				6767	10	4
<b>TO DOUGLASSON TESTIMONIAL FUND—</b>						
Capital—£72 London Midland and Scottish Railway 4% Preference Stock .....	50	8	0			
<i>Revenue Investments—</i>						
£12 4s. 7d. 4½% War Loan, 1925/45 .....	11	7	8			
Balance at Credit of Revenue Account .....	4	5	3			
				48	0	9
<b>TO GOWEN AND WINTERBURN DURSLEY FUND—</b>						
Capital—£1030 London Midland and Scottish Railway 4% Debenture Stock .....	787	19	0			
£1021 18s. 2d. Metropolitan Water Board 3½ " B " Stock .....	636	9	2			
£162 9s. 10d. 5% War Loan, 1929/47 .....	232	19	0			
£115 15s. 11d. Victoria 4½% Stock, 1940/60 .....	433	5	3			
£250 2½% Amortised (Gosnold) .....	102	9	8			
<i>Revenue Investments—</i>						
£96 11s. 4d. 5% War Loan, 1929/47 .....	99	19	2			
£70 12s. 5d. 4½% Conversion Loan .....	68	1	5			
£10 11s. 5% Treasury Bonds, 1935/35 .....	10	12	7			
£71 3½% Conversion Loan, 1941 .....	52	14	4			
£24 17s. 4% Consolidated Stock, 1937 .....	25	12	9			
£203 3s. 5d. 4½% War Loan, 1925/45 .....	188	0	4			
Balance at Credit of Revenue Account .....	11	16	0			
				2388	8	5
<b>TO GOSWELL LEASE FUND—</b>						
Capital—£20 0s. 8d. " B " Amity G.L.F. Railway .....	490	13	2			
<i>Revenue Investments—</i>						
£20 7s. 8d. 4½% War Loan, 1925/45 .....	18	10	1			
£20 5s. War Loan, 1929/47 .....	20	1	0			
£19 11s. 5% Treasury Bonds, 1935/35 .....	10	12	7			
£14 4s. 3½% Conversion Loan, 1901 .....	10	10	11			
£11 18s. 4% Consolidated Stock, 1937 .....	9	17	7			
Balance at Credit of Revenue Account .....	19	10	4			
				547	8	8
Carried forward ..	13445	8	8			
				By Government and other Securities, being Total of Trust Funds Invested, as valued 31st December 1929 .....	25998	4 1
				By Cash at Bank on Current Account .....	89	12 8
				Add Amount due from General Funds .....	25	0 0
					108	12 8
				By Cash at Bank on Deposit Account .....	1310	17 2
				Carried forward ..	32116	13 11



## BALANCE SHEET OF TRUST FUNDS—continued.

Dr.		£	s.	d.	St.
	Brought forward ..	1318	0	0	Brought forward ..
To C. W. HEST BEQUEST—					
Capital—£1,767 19s. 4d. 3½% Conversion Loan, 1901 .....	1312	14	0		
Revenue Investments—					
£22 12s. 1d. 3½% Conversion Loan, 1901 .....	16	15	7		
Balance at credit of Revenue Account .....	69	6	0		
	1398	16	0		
To MAINTENANCE SCHOLARSHIP FUND—					
Capital—£1,832 3½% Conversion Stock, 1901 .....	1811	13	2		
Balance at credit of Revenue Account .....	221	12	4		
	1442	7	0		
To JAMES NEALE BURSARY FUND—					
Capital—£1,280 18s. 1d. 3½% Conversion Loan, 1901 .....	651	4	0		
Balance at credit of Revenue Account .....	55	15	10		
	1006	17	0		
To OWEN JONES STUDENTSHIP FUND—					
Capital—£1,330 London Midland and South- ern Railway 4% Preference Stock .....	1017	0	0		
£1,247 Great Western Railway 5% Con- solidated Guaranteed Stock .....	1197	0	0		
Revenue Investments—					
£413 2s. 3d. 4½% War Loan, 1925/45 .....	412	2	0		
£107 9s. 6d. 5% War Loan, 1929/47 .....	107	14	11		
£70 13s. 5d. 4½% Conversion Loan .....	69	1	4		
£21 2s. 3½% Treasury Bonds, 1923/35 .....	21	3	2		
£339 2s. 3d. 3½% Conversion Loan, 1901 .....	234	12	10		
£11 18s. 6d. 4½% Consolidated Stock, 1907 .....	34	16	0		
£284 13s. 4d. London Midland and South- ern Railway 4% Guaranteed Stock .....	281	5	0		
Balance at credit of Revenue Account .....	150	9	11		
	3440	1	10		
To PERRY MEMORIAL FUND—					
Capital—£1,070 London Midland and South- ern Railway 4% Preference Stock .....	719	0	0		
Revenue Investments—					
£15 9s. 6d. 4½% War Loan, 1925/45 .....	14	8	0		
£47 16s. 3½% War Loan, 1929/47 .....	47	16	0		
£10 11s. 5% Treasury Bonds, 1923/35 .....	10	12	7		
£28 8s. 3½% Conversion Loan, 1901 .....	21	1	9		
£12 8s. 6d. 4½% Consolidated Stock, 1907 .....	10	0	0		
£50 4% Funding Loan, 1909/20 .....	42	15	0		
Balance at credit of Revenue Account .....	31	2	4		
	827	4	4		
To SAKON SMITH BEQUEST—					
Capital—£688 4s. New Zealand 3½% Stock .....	688	0	0		
Revenue Investments—					
£204 10s. 4d. 4½% War Loan, 1925/45 .....	190	4	0		
£50 11s. 4d. 5% War Loan, 1929/47 .....	50	17	2		
£10 11s. 5% Treasury Bonds, 1923/35 .....	10	12	7		
£167 18s. 2d. 3½% Conversion Loan, 1901 .....	124	13	5		
£24 17s. 4½% Consolidated Stock, 1907 .....	20	12	0		
Balance at credit of Revenue Account .....	73	0	4		
	1069	18	0		
To TITE LERACY FUND—					
Capital—£1,120 2½% Consols .....	809	10	0		
Revenue Investments—					
£51 12s. 6d. 4½% War Loan, 1925/45 .....	48	0	0		
£61 4s. 6d. 5% War Loan, 1929/47 .....	61	7	4		
£10 11s. 5% Treasury Bonds, 1923/35 .....	10	12	7		
£14 4s. 7½% Conversion Loan, 1901 .....	10	10	11		
£12 8s. 6d. 4½% Consolidated Stock, 1907 .....	10	0	0		
Balance at credit of Revenue Account .....	34	10	0		
	784	18	4		
To VICTORY SCHOLARSHIP FUND—					
Capital—£1,626 18s. 3d. 5% War Loan, 1929/47 .....	1611	0	1		
Balance at credit of Revenue Account .....	23	0	4		
	1634	0	5		
To A. O. DODSON TRAVELLING STUDENTSHIP AND MEDAL COMPETITION—					
Capital—£3,490 Commonwealth of Aus- tralia 5% Stock, 1945/75 .....	4914	0	0		
Balance at credit of Revenue Account .....	242	2	0		
	5156	2	0		
To ARMSBROOK COMPETITION .....					
To GARAGE COMPETITION .....					
To HENRY JAMES STUDENTSHIP .....					
	439418	12	11		
SAFFERY, SONN & Co., Chartered Accountants.					439418 12 11

Examined with the vouchers and found to be correct; 28 March 1930

K. J. W. HODGE (P.)  
ROBERT W. TITE (P.) Hon. Auditors.







## The Late H. Percy Adams [F.]

BY CHARLES HOLDEN [F.]

H. Percy Adams was born near Ipswich in 1865. The son of a doctor, it was perhaps natural that he should turn to medicine in his architectural practice.

He was articled to Brightwen Binyon, a well-known architect of Ipswich, who was himself a pupil of Alfred Waterhouse. An enthusiastic student, he obtained silver medals at the Royal College of Art in 1887 and 1888 and the gold medal in 1889; he was awarded the Donaldson Medal 1888 and 1889, and was prizeman at the R.A. in 1890. At the R.I.B.A. he won the Institute medal for measured drawings in 1888 and the Godwin Bursary in 1894, following this with an exhaustive study of a large German hospital. Coming to London he entered into partnership with Stephen Salter, and soon showed his ability by winning a competition for the Bedford County Hospital with a scheme which combined lucidity in planning and a nice appreciation of the natural features of the site.

About this time he also designed and carried out the Children's Hospital, Paddington Green, and the infirmary for the Ipswich Guardians.

After Salter's death, in collaboration with Lister Newcombe he entered for and won the competition for the Newcastle Royal Infirmary. With this work Mr. Adams's reputation was firmly established, and important commissions followed. The Belgrave Hospital, the Law Society, Chancery Lane, Central Reference Library, Bristol, Woburn Cottage Hospital, Women's Hospital, Soho Square, Tunbridge Wells General Hospital, Hospital for British Seamen at Constantinople, and the King Edward VII Sanatorium were among the works carried out in the next seven years.

In the case of the King Edward VII Sanatorium, Mr. Adams was chosen by the committee as the most likely man to carry out their ideas successfully, and he made a tour of German sanatoria, making a thorough study of their design, before preparing the drawings for the buildings at Midhurst.

In 1907 an association of seven happy years was confirmed by our partnership, and among the works which followed are: The British Medical Association, Bristol Royal Infirmary, Sutton Valence School, Kent; King's College for Women, Kensington; Institution of Electrical Engineers, and hospitals at West Ham, Ampthill, Hitchin, Southport, and the Royal Northern Hospital.

In 1913 Mr. Pearson became a partner.

After the war, the practice increased to such an extent that each partner took over certain jobs for which he was more or less personally responsible, but Mr. Adams remained always a master of his craft and we were glad to avail ourselves of his vigorous and stimulating criticism, and it was this criticism so freely exchanged between one and another that has been one

of the most important factors of the partnership.

He had a keen sense of loyalty to the family, and we all felt that we were members of the family. To the last he spent himself in the work he had so much at heart, and most of the work carried out since the war bears the stamp of his strong personality. Among these works are the Royal Westminster Ophthalmic Hospital, the reconstruction of Westminster Hospital, hospitals at Torquay, Deal, Margate, Bexhill, Southend and Malta, and various works for the Underground Railway.

By this time his son, P. W. Adams, was also a partner.

Mr. Adams designed a new type of ward which marks a distinct advance in hospital planning, and this has been incorporated into the scheme for Southend Hospital.

His paper on hospital planning, read before the Institute last year, is likely to remain the standard work on the subject for a long time to come.

He acted as assessor in the competition for the new Birmingham Hospital Centre—one of the most important hospital competitions in recent years—awarding the first premium to a design excelling in both plan and architectural composition.

He never lost his zest for competitions, and his sporting sense of team work was never more in evidence than when engaged in some big competition when all the staff was working against time to complete the drawings.

With unfailing regularity at the end of each competition when the drawings were mounted he would overhaul them and find point after point to be improved on, or perhaps to be altered to agree with the report, and we at the end of our tether and almost on the point of mutiny—but he would get his way and we would all set to work with hearty good will, with knife, scraper and eraser while the cab was waiting at the door.

Even with the shadows gathered about him "morning was in his heart," and this is perhaps the secret of the hold he had over us and all connected with his work.

### THE REOPENING OF ST. PAUL'S CATHEDRAL.

In view of the completion of seventeen years' preservation work at St. Paul's Cathedral next June, Canon Alexander (Hon. A.R.I.B.A.), has prepared a second edition of his volume on *The Safety of St. Paul's*, which is to be published by Mr. Murray on 1 May at 2s. 6d. net. It has four illustrations, and contains a new preface insisting on the great importance of protecting the cathedral against any deep excavations in its neighbourhood.

### MODEL OF THE HOLY SEPULCHRE.

It was hoped to publish a photograph of the model of the Holy Sepulchre mentioned in our last issue, page 385, but owing to limitations of space this has been omitted.



## Allied Societies

(The attention of Members of the Allied Societies is particularly called to this page)

### NORTH STAFFORDSHIRE ARCHITECTURAL ASSOCIATION.

The fourth annual dinner of the North Staffordshire Architectural Association was held at the North Stafford Hotel, Stoke, on Tuesday, 18 March.

Mr. E. T. Watkin (President of the North Staffordshire Architectural Association) was in the chair, and among those present were Sir Banister Fletcher (President of the Royal Institute of British Architects), Mr. Joseph Emberton, Mr. Duncan Campbell (President of the Liverpool Architectural Association), the Lord Mayor of Stoke-on-Trent (Alderman G. H. Barber), the Mayor of Newcastle (Alderman R. Beresford), Count B. de Sieres, Alderman F. Hayward, Mr. Ian MacAlister (Secretary of the R.I.B.A.), Mr. E. N. Scott (Editor of the *Sentinel*), Mr. H. Goldstraw (Immediate Past President of the North Staffordshire Association), Mr. R. T. Longden, Mr. W. Campbell, Mr. D. C. Campbell, Mr. J. B. Adams, Mr. H. Godwin (President of the North Staffordshire Builders' Federation), Mr. A. Burton (City Surveyor), Mr. A. J. Wade, Mr. R. E. Ball, Mr. Francis Jones, Mr. W. J. Venables, Major Sparrow, Mr. A. R. Scrivenor, Mr. A. R. P. Piercy, Mr. C. P. Edwards, Mr. J. R. Piggott, Mr. F. Murrell Maddox, Mr. G. Bloor, Mr. G. Hollins, Mr. R. L. Jones, Mr. T. Yoxall, Mr. F. V. Hulme, Mr. W. Pendleton and Mr. E. R. Steele.

The toast of the Royal Institute of British Architects and the North Staffordshire Association was proposed by Alderman F. Hayward.

During its existence, said Alderman Hayward, the R.I.B.A. had numbered among its members men of the highest qualifications who had not only looked upon their art in the light of a profession but had endeavoured to apply it to the lasting benefit of the community. Architecture, through its premier organisation, had played an enormous part in the beautification of our towns and cities.

The art of the architect was of the highest importance to the development of civilisation. The Institute had passed its 94th year, and the dominating aim had been to seek, not what they could gain from the profession, but how, by helping one another, they could use their Institute to the greatest benefit of the community. One of the best things about the professional associations of this country was the training of students who would be the successors in the profession.

Alderman Hayward referred to the fact that the Institute's gold medal had come outside London for the first time.

"Living in a city which is an aggregation of small towns," continued Alderman Hayward, "we have not many examples of fine architecture, but I think we can claim that there has been a distinct improvement in the last few years. I am hoping for still greater things in the future."

In his reply, Sir Banister Fletcher observed that the North Staffordshire Association was one of the youngest of the forty societies which owed allegiance to the Royal Institute in London, but in the short time since its foundation it had done excellent work in its area. By allying itself to the Liverpool Architectural Society it had done something which would be of great advantage to itself and to the public it served.

Expressing his pleasure at being present, Sir Banister observed: "I felt for a time that I might feel somewhat a stranger in this assembly; but, on arriving in this city, I, of course, bought a copy of your evening paper, and in it I found an excellent likeness of myself, together with a biography, so I was able to welcome myself in this assembly."

"I also saw the heading of a leader in that paper which filled me with admiration for its Editor. The

leader was headed, 'Give the architects a chance.' What more do you want? It is what we are all waiting for, and when we find that the Press of this great city—which is about eleven times as big as the City of London—pleads for a chance for architects, you will see what an opportunity you have for rebuilding the city, with its length of eleven miles and its width of about three miles. I think the Editor must have had that in mind when he devised that most excellent heading for his leader."

Turning to the question of regional planning, Sir Banister Fletcher said he did not know what was being done in North Staffordshire, but it was one of the questions with which architects were going to have a great deal to do within the coming years. In London they had a Greater London Regional Planning Committee, which was dealing with an area of about 2,000 square miles. They were proposing to get out a great regional planning scheme, so that the district round London could be treated as a whole. That was the only way to deal with the town planning. They wanted to get schemes that would eventually include the whole of England.

Mr. Greenwood, the Minister of Health, was preparing a new Town Planning Bill. In that Bill there would probably be many clauses which would be hotly contested, but, in his opinion, they were absolutely necessary if the country were to retain some of its beauty in the years to come.

Sir Banister went on to observe that while there were regulations dealing with the thickness of the walls they were to build, the area and height of the rooms and the sanitary arrangements, the only things that the public saw were the elevations of buildings. They wanted, if possible, to have some control in that respect, and on that question their young and enterprising Association would have something to say in the future. The treatment and control of elevations was essential, because they were seen by almost everybody; and, if possible, any offence to people's sense of beauty should be prevented. Throughout the country panels of architects were being formed, and he believed Mr. Longden had drawn up a scheme which would be to the advantage of those concerned in building throughout the country. It would be a great feather in the cap of their Association if one of their past Presidents could bring this idea in regard to the appearance of buildings into the realm of practical politics.

The Institute, Sir Banister concluded, was getting on in years, but it was trying to keep abreast of the times.

The response was shared by the President of the North Staffordshire Association, Mr. E. T. Watkin, who said that the Association was a young one, which owed much to its chief founder, Mr. Longden. Its formation had brought about a feeling of camaraderie amongst the architects of the district. One of the most gratifying features was the way the students had joined in the activities. They had supported the competitions, and had been most active and ambitious. Mr. Longden had suggested that the students should compete in a design for the lay-out of the centre of Hinley, and Mr. Burton, the City Surveyor, who acted as assessor, made most complimentary remarks about the designs.

Referring to the disfigurement of the countryside, the President said that propaganda had already been started by the *Sentinel*, with its pictures of the beauty spots of the district. If it only brought to the homes of the people in the side streets of this commercial district the knowledge that there were such places to visit and enjoy, it would have been well worth while.

Referring to regional planning, he had it on the authority of Alderman Hayward that regional planning was now in course of preparation for the City of Stoke-on-Trent. If the local



architects were allowed the chance to help—not necessarily for remuneration—it would be, in the end, for the benefit of the district.

Mr. Emberton, who was cordially received, submitted the toast of the City of Stoke-on-Trent. It was nearly twenty years, he said, since he left the six towns, as they were then. There was no North Staffordshire Architectural Association, and he did not think he then knew another architect or architect's assistant in the neighbourhood. He expressed the hope that new buildings in the city would have much glass, and would be well ventilated and comfortably heated, and that they would really express what they were doing. In that way each building would attain an individuality which would be both interesting to the public and of commercial value to the proprietor.

The advertising value of a building with individuality was very considerable. Hitherto they had tried to disguise it—to make it respectable by covering it up with some ancient form of ornament which had nothing to do with the job.

He was advocating that the City of Stoke-on-Trent should be built just as sensibly as a motor car or an engine was built, and he was convinced that new forms would be the result of solving modern conditions by the use of modern materials—in other words, by using all the absolute efficiency.

The Lord Mayor replied.

"Our Guests and Honorary Members" was proposed by Mr. J. B. Adams and responded to by Mr. E. N. Scott (Editor of the *Sentinel*) and Mr. Ian MacAlister (Secretary of the R.I.B.A.). The proceedings concluded with the National Anthem.

#### TEES-SIDE BRANCH, NORTHERN ARCHITECTURAL ASSOCIATION

We publish below an abstract from the Seventh Annual Report of the Tees-side Branch of the Northern Architectural Association.

The Season opened with the Annual Dinner at the Vane Arms Hotel, Stockton, on 19 March 1929, presided over by Mr. G. J. Bell. After dinner the business transacted was the election of officials for the forthcoming year, as follows: Chairman: Mr. Arthur Harrison; Vice-Chairman: Mr. Charles Cayley; Acting Hon. Secretary: Mr. James Herring; Hon. Treasurer: Mr. Arthur Harrison; Hon. Auditor: Mr. Charles Cayley. Committee (all past Chairmen *ex officio*): G. P. Stainby and F. W. Turnbull, Stockton; E. C. Bell and M. Trotter, West Hartlepool; H. E. Jarvis and H. B. Richardson, Darlington; S. H. Clarke and J. R. Wray, Middlesbrough. Mr. C. Johnson was elected Students' Representative. The N.A.A. Council Representatives were elected as follows: T. W. T. Richardson, G. J. Bell, J. Clayton, R. R. Kitching, C. F. Burton and Arthur Harrison.

The awards for the Hospital Planning Competition were presented as follows: 1st Prize (Senior), Mr. R. G. Bell; 2nd Prize (Senior), Mr. C. E. Westmoreland; 1st Prize (Junior), Mr. F. A. C. Maumder; and Prize (Junior), Mr. W. A. Hutchinson.

Mr. J. A. E. Lofthouse's Spanish Sketches and the Competition Drawings were on view during the meeting.

During the year the chief items of note were—

(1) The great loss sustained by the Branch through the decease of Mr. J. A. E. Lofthouse, Middlesbrough, the founder Chairman; and also the death of Mr. J. W. Moscrop, of Darlington.

(2) The formation of a Design and Sketch Club. This matter was proposed by Mr. A. Taylor, of Darlington, at the Annual Dinner; the progress of the Club during the year has been very satisfactory, and much is due to the work done by Mr. Taylor in connection therewith.

(3) The British Architects' Conference at York, of which full advantage was taken by the Branch, at the Spring Meeting given hereafter.

(4) The inauguration of each Member subscribing to the Architects' Benevolent Fund. There has been quite a good response towards the fund, details as follows:—

response towards the fund, details as follows:-			
Messrs. J. E. Chilton and A. Harrison, £1 1s. each	£	s.	d.
		2	2 0
Messrs. G. J. Bell, M. Robson, S. H. Clarke, R. R. Kitching, W. A. Kellet, J. R. Weatherill and N. Dent, 10s. 6d. each		4	4 0
Mr. J. Dobson, 10s.		0	10 0
Messrs. E. C. Bell, E. R. Chilton, W. Lamb, F. W. Turnbull, J. O. Ames, J. Herring, G. C. Brownlee and F. Hughes, 4s. 3d. each		1	14 0
Messrs. N. F. Davidson, T. S. Hope, A. Jeffrey and C. E. Westmoreland, 2s. 6d. each		0	10 0
Mr. T. W. T. Richardson (sent direct), £1 1s.		1	1 0
Tees-side Branch donations		5	3 0

Total... £15 6 0

(5) The curtailment of Committee Meetings being sustained, and the 3 o'clock time still found to be a much better feature than later evening gatherings.

The Branch attended Dr. Crockett's lecture, "Renaissance Architecture," on 11 March 1929, in conjunction with the Stockton Historic Association, this proving an interesting and pleasant evening.

The Spring Meeting was held at York on 13 June 1929, in connection with the British Architects' Conference.

The Summer Meeting was held at Billingham on Tuesday, 23 July 1929, the Branch being guests of the "Imperial Chemical Industries." The visitors were entertained to lunch at Norton Hall, afterwards being conducted round Messrs. Casebourne's Cement Works at Haverton Hill; the I.C.I. Housing Scheme at Billingham, in course of development, was also inspected.

The Autumn Meeting was held at the South Durham Steel and Iron Co.'s Works, Stockton, on Saturday morning, 12 October 1929. The Branch met at the works and were conducted over the steel pipe section by some of the officials.

#### SHEFFIELD, SOUTH YORKSHIRE AND DISTRICT SOCIETY OF ARCHITECTS AND SURVEYORS.

A lecture on Easements of Light was delivered by Mr. John Swarbrick, F.R.I.B.A., before the Sheffield, South Yorkshire and District Society of Architects, on 13 March. Mr. W. G. Buck, F.R.I.B.A., Vice-President, in the chair. Mr. Swarbrick dealt with the various kinds of projections now used in Easements of Light disputes whereby it was possible to define in an entirely scientific manner the extent of the injury resulting from an infringement of light, these methods being now adopted in the settlement of disputes both in Court and Arbitration.

In the past, Mr. Swarbrick stated, it had been exceedingly difficult to assess in a proper manner what would be a reasonable amount of compensation to pay to a firm whose easements of light had been detrimentally affected by a new building. This difficulty had arisen owing to the lack of means to define scientifically the exact nature of the injury. Fortunately, means had now been found whereby all this uncertainty had been removed. There might still be differences regarding the extent to which a specific infringement of light would affect the rental value, but there need be no uncertainty regarding the precise nature of the infringement. At one time it was customary to measure lighting conditions by means of photometers, but this could obviously only be done when the conditions in question were in existence, as after a new building had been erected.

The most reliable method of measuring loss of illuminations, in his opinion, was represented by a series of projections on paper which were usually known as sky projections, calculating diagrams and daylight plans. The new methods were most helpful because they made it possible not only to show how much light would be lost owing to the erection of a pro-



posed new building that had not been commenced, but also to prove exactly the amount of light that was obstructed by some previous erection that had been demolished.

In making such projections it was necessary to assume some definite standard of sky illuminosity for all conditions, as otherwise the ratios on one drawing would not be comparable with those on another. In preparing daylight plans it had also to be remembered that it was the practice to determine the nature of the lighting conditions at table level or approximately 3 feet above the floor. The plans therefore recorded what the effect would be on a horizontal plane at table level, which was the most important plane in the room for ordinary clerical purposes. One of the Easement of Light drawings most frequently used in the settlement of disputes was the sky projection. A sky projection was usually made so as to show what portion of the sky surface would be obstructed by both the proposed and the original structures. From the eye, which was assumed to be at table level, and on the surface of the window glass, rays of light may be assumed to pass so as to mark on the dome of the sky the areas that would be concealed by both the original and ultimate structures. In the same way the jamb and head of the window opening would be likewise produced. The practice was to imagine the sky divided into segments of five degrees each way by lines representing celestial latitude and longitude, and similar projections might be made to show the effect at various points within a room.

In the case of both sky projections and calculating diagrams the effect at one point alone was recorded in the case of each drawing, and the effect at this one point, although absolutely accurately represented, might be quite misleading as regards the greater part of the floor area. It was therefore desirable in all important cases to prepare in addition large scale daylight plans on which definite percentages of light on a normal day under both original and ultimate conditions could be clearly plotted. With the assistance of sky projections, calculating diagrams and daylight plans it was comparatively easy to define the nature of lighting under both original and ultimate conditions, but even when this had been done and agreed, and accepted by both parties, the problem still remained as to how far such infringements would depreciate the rental value of rooms.

The lecturer went into the question of whether, in preparing daylight plans, allowances should be made for reflection from the ceiling, walls and objects within the room, but he thought that to do so would be a questionable proceeding, in view of the desirability of limiting the inquiry to the consideration of the rays of direct daylight infringing on an imaginary plane at table level, and the advantage of not introducing merely conjectural percentages that would be very small and dependent entirely upon variable conditions, such as the colour and finish of the decorations. The same objections would apply to considering light reflected from glazed or lime-washed walls which might be very clean, moderately clean, or very dirty.

Although modern methods had removed the possibility regarding the extent to which an infringement might have effected the natural illumination of interiors, there still remained the problem of determining to what degree the depreciated lighting would affect the rental value, and he suggested that a method of logically deducting a percentage of depreciation would be by ascertaining the ratio of inadequately lighted area to the entire area at table height of a room under both the original and ultimate conditions and by adopting the difference as the percentage required, but much depended upon the purpose for which the rooms were used, and each case must be considered on its own merits; and with regard to the rental value of premises per square foot or square yard there might be an appreciable difference of opinion by experts, as the value is naturally affected by the demand, trade conditions, situation and other matters. When the question of percentage of depreciation and rental value had been agreed by both parties, or otherwise determined, there was little further difficulty to be

anticipated, as it was customary to capitalise the annual depreciation on the 5 per cent. table.

It sometimes happened that the Easements of Light infringing existed in a dilapidated old building of low rental value which was about to be demolished. It must, however, be remembered that the easements might be preserved in a new structure to supersede the former building, and that the valuation of depreciation should take into consideration the higher rental values obtainable from the date when the new buildings would be tenable. Another possibility was that rooms in office buildings might need to be differently subdivided at some definite future date, with the result that lateral light which had compensated for the injury done by an infringement would be completely intercepted, and as the full effect of an infringement would then be felt the course would obviously be to calculate the capital value in perpetuity of compensation for loss of rent per annum in respect of the ultimate depreciation of light and to deduct from it the present value of the amount of compensation payable annually up to the date when the new subdivision of the offices would take place, assuming that no compensation would be payable prior to the subdivision.

Mr. Swarbrick concluded by stating that the standard of what constituted a reasonable amount of light could not be the same for all parts of a large city, and mentioned the opinion given by Lord Thesiger in the case of *Stinges v. Bridgman*, when he expressed the view that what might constitute a nuisance in Belgrave Square need not necessarily do so in Bermondsey.

#### WEST YORKSHIRE SOCIETY OF ARCHITECTS.

Mr. G. H. Foggitt presided at a meeting of the West Yorkshire Society of Architects, held at the Leeds College of Art on 20 March, when Mr. Norman Culley, of Huddersfield, was elected president, and Messrs. J. E. Stocks, Leeds, and J. F. Walsh, Halifax, vice-presidents of the society for its ensuing session.

Mr. Howard Robertson, F.R.I.B.A., Principal of the Architectural Association School of Architecture, London, gave a lecture on modern architecture in Germany.

In the course of his lecture Mr. Robertson said:—

"The theory that the German is a man who copies laboriously what others invent does not at any rate apply to architecture. In this field Germany leads in inventiveness, both in large conceptions and in small details. Swedish architecture has greater charm, a softer humanity, and Danish more polished refinement. But in boldness, directness, and grasp of the modern problem, Germany has no superior.

"The modern movement there is not new. It started many years ago, inspired perhaps by the 'Secessionism' of the Viennese Otto Wagner, but also by a reaction against pseudo-romanticism—Rhine castle and mediæval imitations generally. The movement spread rapidly because German tradition had been swamped by importations and influences, and these traditions in any case were local and not national. The field was open for a new expression consonant with Germany's growth as a world power.

"Before the war an exhibition was held at Cologne which was practically as modern as anything we see to-day, with an expression of steel and glass which typified Germany's commercial development. The buildings were severe, simple, geometrical, and broke almost completely with the customary forms of tradition. But they suggested a new type of classicism, and were the basis for the clean straightforward form of design which is seen in the best of German work of the present.

"Modern architecture finds its best expression in commercial and public building—offices, shops, schools, baths, railway stations—work in which function is of paramount importance. Here the architect is thrown upon his own



resources, and finds inspiration in the form, purpose and structure which are the outcome of the building programme. The result is a truer statement, devoid of pedantry or affectation, and the buildings have a truer relationship to present-day life.

"In England, architectural design has been so preoccupied with the maintenance of tradition that a truly modern building comes as a shock, and may be out of key with its more or less 'old world' surroundings. But in Germany a modern evolution has been going on for so many years that there is a continuity of development to be seen, and the very new seems only a natural outcome of what has gone before.

"All new buildings of importance in Germany to-day are of the modern type; practically no reproduction work is seen. They are marked by boldness in experiment, for German architects have tried all types of external design. There are buildings based on vertical motifs, almost Gothic in their aspiration, others composed of horizontal bands of wall and windows like layer cakes. A third type treats the wall and windows as so much pattern, without definite sense of direction. Many materials are tried, including vitreous facings, stainless steel, glass and plain concrete. But at present the most popular material for facing buildings is a German travertine stone, with which whole sections of Berlin are being refaced. The cinemas and theatres are finely designed, and employ illumination with a skill and lavishness unknown in England. The decoration is also less profuse and gaudy, and the standard of artistic endeavour is on a higher plane. The outstanding effort is to produce order and a richness of simplicity. Many of the older buildings in Berlin are being 'shaved' of their rococo decorations, and refaced with smooth broad surfaces, the windows formed of large sheets of polished glass. The influence of the machine—its clean efficiency—is evident, but there is plenty of relief and phantasy in the way of details of carving and metalwork.

"German housing reaches a high level of design, though the accommodation offered is more restricted than in England. The interior equipment is especially good, particularly the kitchens, which are fitted with the very latest appliances, metal fittings, tiled walls, and electric cookers. The tendency is to provide one very good living room, as large as possible; and the exteriors of the houses, often gay with colour, have a certain dignity which is maintained in the well ordered streets and gardens. Large blocks of flats are an alternative to rows of single dwellings. They are frequently planned with a large garden court, in which are sand pits where children can play safely in the open air. The physical culture movement is making enormous strides, and is officially encouraged; the result is seen in the beautifully laid-out bathing establishments and recreation centres which are springing up all over Germany. Some of the swimming-baths are fine pieces of modern design, conceived more beautifully and scientifically than our own. Architecture for the people in Germany is certainly on a level which in England would be expected only for the wealthy.

"There is a lesson for English architects, and municipal bodies also, to be learned from post-war Germany. It lies in the great care which is taken over the preparation of building schemes, the combination of ingenuity and orderly arrangement in planning, and the simplicity and good taste which is increasingly evidenced. Not all the schemes are well-designed or even constructed, but the standard is constantly improving.

"The public buildings achievement is high. The new railway stations of Leipzig and Stuttgart are models of restrained and dignified modernism, the new market hall at Frankfurt is a magnificent piece of design, 800 feet in length, equipped with every scientific appliance, and, architecturally, a hall of splendid dignity.

"Germany is creating a living architecture. It is transitional still, but keeps pace with every modern desire and with structural or scientific invention. The cost of building is higher than

in England, and this is often reflected in the quality of workmanship. But progressive ideas seem to be widely welcome, and there is great competence in the way they are carried out. There is nothing in Germany better than the finest of English domestic or ecclesiastical work. But in the spheres of public or commercial building she affords a great stimulus to the architectural profession in England. Before, however, English architecture can progress as it should, the conservative outlook of the building owner, private and public, must be seriously modified. There is plenty of architectural talent available in this country, but it receives most mediocre encouragement."

Mr. R. A. Easdale (Castleford) proposed a vote of thanks to the lecturer, which was seconded by Mr. D. S. Andrews, principal of the Leeds College of Art.

Colonel H. W. Barker and Mr. G. H. Foggitt also spoke.

#### SOUTH WALES INSTITUTE OF ARCHITECTS.

The annual dinner of the South Wales Institute of Architects was held at the Royal Hotel, Cardiff, on Thursday, 27 March. Sir Banister Fletcher, F.R.I.B.A., F.S.A., F.S.I., President of the Royal Institute of British Architects, was the principal guest, and among others supporting Mr. T. Alwyn Lloyd, F.R.I.B.A., M.T.P.I., as President of the South Wales Institute, were:—

Lady Banister Fletcher, the Lord Mayor and Lady Mayoress of Cardiff (Alderman William Charles, J.P., and Mrs. Charles), Principal J. F. Rees, M.A., of the University College, the Mayor and Mayoress of Newport (Councillor and Mrs. W. H. Brinsmead Williams), Mr. Ian MacAlister, M.A. (Secretary of the Royal Institute of British Architects), Mr. G. C. Lawrence, R.W.A., F.R.I.B.A. (Chairman of the Allied Societies' Conference of the Royal Institute of British Architects), Mr. C. M. E. Hadfield, F.R.I.B.A. (President of the Sheffield, South Yorkshire, and District Society of Architects and Surveyors), Mr. Cecil G. Brown (Town Clerk, Cardiff), Principal Charles Coles, B.Sc. (Technical College, Cardiff), Mr. John Powell (vice-president, Cardiff Incorporated Chamber of Commerce), Dr. D. A. Powell (chief M.O., Welsh Memorial Association), Mr. Robert J. Welber, Dr. G. Arbour Stephens (Swansea), Mr. J. B. Dawson (Secretary, Swansea Association of Building Trade Employers), Dr. Cyril Fox, F.S.A. (director of the National Museum of Wales), Mr. Percy Watkins (secretary, South Wales Federation of Building Trades Employers), Mr. W. R. Hewitt (president of the Cardiff Master Builders' Association), Mr. T. E. Gough (president of the South Wales Federation of Building Trades Employers), and Mr. W. S. Purchon, M.A., A.R.I.B.A. (Welsh School of Architecture, Cardiff Technical College).

Principal Rees, in proposing the toast of "The Royal Institute of British Architects and its Allied Societies," said he would like to see a more vivid sense of making a town or city as beautiful as possible. The citizens and visitors had not the respect for it that one would wish. A city should be the impression of the spirit of the people. They must build more worthily, and make the city decent for children to live in. Architects should have a strong sense of their social responsibility—they were building the mould in which the people were framed.

"There is in Cardiff," he continued, "a Welsh School of Architecture, and it is doing magnificent work. It has a very high record, and at the head of it is Mr. W. S. Purchon. There is, so far as I can see, only one thing lacking about the Welsh School of Architecture, which is splendidly housed at the Cardiff Technical College, and that is that it has not got what is called university recognition. Other schools of architecture have university recognition, and this school, which even surpasses those that have, has not got it. What one would like to see would be something of this kind. First of all, the Welsh School of Architecture given university recog-



nition by the University of Wales, and one would like to see along with that the title of Professor of Architecture and the Applied Arts given to Mr. Purchon.

"We would like to see Mr. Purchon do propaganda work in Wales in favour of architecture and the applied arts. One would like to see Wales and Monmouthshire made his one diocese. That means that we would have to set him free for part of his time. I would also like to see our students given facilities to attend qualifying courses in architecture and the applied arts.

"I should like to say that as far as I am concerned I see no difficulty in realising these aims, and that I am determined, so far as lies in my power, to assist in realising them. I am sure that Principal Coles, of the Technical College, and his committee would support us in this. It has been in the air once or twice as a possibility. It has now come to the point when we should make an effort to realise it—when we should have this University recognition with all its attendant circumstances."

Sir Banister Fletcher, in responding, paid a high tribute to the work of Mr. Purchon and expressed the hope that Principal Rees' suggestion could be carried out in the near future. After dealing with the educational facilities offered in Cardiff, the speaker referred to the Royal Institute of British Architects as a great imperial federation for the advancement of the art. It numbered in its ranks some 11,000 architects, with some 4,000 or 5,000 members of Allied Societies.

Mr. T. Alwyn Lloyd, who also responded, said the South Wales Institute had probably the largest area of any of the Allied Societies, and one which it would be difficult to beat in its variety of interests. Mr. Lloyd referred to the town-planning activities and to the efforts which were being made for the preservation of the countryside.

The Lord Mayor, in responding to the toast of "Our Guests," proposed by Lieut.-Col. E. H. Fawcner, congratulated Messrs. Ivor Jones and Percy Thomas on their outstanding success in winning the designs for Swansea's proposed civic centre.

Mr. G. C. Lawrence and Mr. T. E. Gough also responded.

#### DINNER TO MR. R. ATKINSON.

The Architectural Association held a dinner at the Criterion Restaurant on 10 April in honour of Mr. Robert Atkinson, who had been principal and director of education at the A.A. and retired last July after 16 years' service. Mr. F. Winton Newman, the president of the Association, who was in the chair, read messages of appreciation of Mr. Atkinson's work for architectural education from—Sir Banister Fletcher, president of the Royal Institute of British Architects; Mr. W. R. Davies, of the Board of Education; the Architectural League of New York; architects in Sweden, Denmark, and Holland; and old students of the Association in Australia, New Zealand, and South Africa.

Submitting the toast of their guest, the Chairman said Mr. Atkinson had given unstinted service for the cause of architectural education, but his work, great as it was, could only be a phase in his life. He had probably made a personal sacrifice in giving those 16 years to the Association. Great results had been achieved under his leadership. Architectural training had been practically revolutionised. The students had received his curses as well as his blessings, but there was no student who had passed through his hands who had not cause to thank him. The time had come when he felt that he could not continue his own practice as well as the work of the Association. He had, however, consented to join the council.

Mr. H. Austen Hall, Mr. Maurice E. Webb, a former president of the Association, Mr. Howard Robertson, the Principal, and Sir Archibald Flower supported the toast. Mr. Webb said that Mr. Atkinson had created a great school which was becoming a tradition. Schools which had been founded throughout the Empire were modelled on it.

#### NOTES BY MEMBERS OF THE SCIENCE STANDING COMMITTEE.

*The Electrolysis of Water Mains, Pipes, etc.*—The Metropolitan Water Board have issued an interesting report by the Chief Engineer, Mr. Henry E. Stilgoe, M.Inst.C.E., on "Electrolysis of Water Mains, Pipes, etc., and Graphitic Deterioration."

At the end of the report Mr. Stilgoe gives the following conclusions:—

- (1) Earthing connections from the casings of transformers dealing with electric currents of a pressure of 500 volts or more should be made by means of a proper and efficient earthplate as far removed as possible from any pipe or apparatus of the Board, or that of any water consumer.
- (2) Any telephone or bell return circuits of Telephone Exchanges which are not specially provided for by a return wire should be connected to an earthplate as above.
- (3) No earthing connection should be made to any pipe or apparatus of the Board, or that of any water consumer, from any electrical installation other than such as may be required for conducting away temporary leakage of current from faulty fittings.
- (4) Whenever earth connection is made on any premises in which is installed a water meter belonging to the Board, it should be made on the inlet side of the meter, or a bond should be inserted across the meter.
- (5) In the case of any wireless set supplied from the electric lighting system, the earthing connection should be made by means of an earthplate as far removed as possible from any pipe or apparatus of the Board or that of any consumer.
- (6) In order to mitigate or obviate electrolytic corrosion either from stray currents or difference of potential between the metal or metals, it is essential that the joints between the several pipes or between the pipes, apparatus or fitting of the Board or the consumer should be electrically efficient, and that no jointing material having an insulating effect should be inserted at the joints. If jointing with insulating material is unavoidable, the pipes or fittings should be electrically bonded over the joint or joints.
- (7) Although the "graphitic condition" which is found in so many pipes of the Board, and sometimes in only quite short lengths, may in some measure be due to electrolytic action, it is probably, in a greater degree, due to the action of sulphur produced by bacterial action or otherwise from the gypsum content of the yellow London clay, or from refuse ashes, coal gas, and other materials containing sulphur.
- (8) It would appear that the only method of eliminating this action is by keeping the clay or other sulphur-containing material away from possible contact with the pipes by surrounding them with a protecting medium.
- (9) It would also appear desirable that in order to eliminate as far as possible electrolytic action due to stray currents or otherwise, the material surrounding the pipe should be as dry as possible.

H. D. SEARLES-WOOD [F.].



## NOTES FROM THE MINUTES OF THE COUNCIL.

3 March 1930.

## R.I.B.A. ATHENS BURSARY.

It was formally reported to the Council that the President, in consultation with the Officers of the Board of Architectural Education, had awarded the R.I.B.A. Athens Bursary to Mr. G. D. Gordon Hake [F.], School of Architecture, Royal West of England Academy, Bristol.

## THE TWELFTH INTERNATIONAL CONGRESS OF ARCHITECTS, BUDAPEST, SEPTEMBER 1930.

On the recommendation of the Congress Committee it was decided to invite the following members to prepare papers for the Congress:—

- (1) "Architectural Education in England in Relation to Practice": Mr. L. Sylvester Sullivan.
- (2) "The Registration of Architects in England": Major Harry Barnes.
- (3) "Architectural Copyright in England": Mr. W. E. Watson.
- (4) "The Role of the Architect in the Design of Industrial Buildings in England": Mr. R. A. Duncan.
- (5) "The Acoustics of Large Halls in England": Mr. Hope Bagenal.

## THE WORLD ENGINEERING CONGRESS, TOKYO.

A resolution of thanks was passed in favour of Mr. J. C. Wynnes [F.] for acting as the R.I.B.A. delegate at the recent World Engineering Congress, Tokyo.

## THE BRITISH ENGINEERING STANDARDS ASSOCIATION.

Mr. R. J. Angel [F.] was appointed to represent the R.I.B.A. on the Committee recently set up by the British Engineering Standards Association to consider the standardisation of Commercial Plywood.

## THE ANNUAL DINNER.

A resolution of thanks was passed in favour of the City Lands Committee for their kindness in granting the use of the Guildhall for the R.I.B.A. Annual Dinner, to be held on 15 May.

The Council also expressed their thanks to the President for his good offices in the matter.

## THE LIVERPOOL ARCHITECTURAL SOCIETY AND THE NORTH STAFFORDSHIRE ARCHITECTURAL ASSOCIATION.

The Council gave their formal approval to the extension of the province of the Liverpool Architectural Society which has taken place by reason of the North Staffordshire Architectural Association having become a branch of the Society.

## THE MANCHESTER SOCIETY OF ARCHITECTS AND THE PRESTON, BLACKBURN AND DISTRICT SOCIETY OF ARCHITECTS.

The Council gave their formal approval to the affiliation of the Preston, Blackburn, and District Society of Architects with the Manchester Society of Architects.

## THE MISUSE OF POWER BY LOCAL AUTHORITIES.

On the recommendation of the London Building Acts Committee the Council approved the publication of a note in the JOURNAL asking members to submit evidence of cases in which local authorities appear to have exceeded their statutory powers.

## THE FELLOWSHIP.

The Council, by a unanimous vote, elected Mr. R. H. Macdonald of Montreal to the Fellowship under the powers defined in the Supplemental Charter of 1925.

## MEMBERSHIP.

*Election, 7 April 1930.*—Nominations for membership were approved as follows:—

As Hon. Associates	..	2 applications.
As Hon. Corresponding Members	..	2 "
As Fellows	..	18 "
As Associates	..	43 "

*Reinstatement.*—The following ex-member was reinstated:—

As Licentiate: William Hull-Brown.

## APPLICATION FOR ELECTION AS LICENTiate UNDER SECTION III (f) OF THE SUPPLEMENTAL CHARTER OF 1925.

One application was approved.

## RESIGNATIONS.

The following resignations were accepted with regret:—

E. J. Wellman [F.],  
Charles Forsyth [A.],  
H. P. Briggs [L.],  
George C. Copestick [L.],  
Patrick Coughlan [L.],  
Alex. Gordon [L.],  
R. J. Hill [L.],  
G. Sharnan [L.].

## RETIRED FELLOWSHIP.

The following member was transferred to the Retired Fellowship:—

J. W. Stanley Burnmaster (elected Fellow 1891).

## ELECTION OF STUDENT'S R.I.B.A.

The following were elected as Students at the meeting of the Council held on 7 April 1930:—

COLLIE: ROBERT ANDERSON, 5, Abbey Drive, Glasgow, W.4.  
CORNELIUS: KATHLEEN ELBA, The Henninge, Hexwall, Cheshire.  
DUNN: HERBERT GORDON, 11, Belgrave Place, Edinburgh.  
FOLEY: JOSEPH, 56, St. Malo Avenue, Town Road, Edmonton, N.9.  
HALL: ANNIE ELIZABETH, 15, Gower Street, London, W.C.1.  
HEATHCOTE: EIRIAH RONALD, Priestcliffe, near Buxton, Derbyshire.  
HERBERT: PHILIP BURNELL, Shrubbery, Hampton-in-Arden, Warwickshire.  
KNIGHT: CYRIL ATLEE, "Atlee," Gervis Road East, Bournemouth.  
MILLER: ALEXANDER, 269, Stonelaw Road, Rutherglen.  
ROBERTS: RICHARD EMBRY, Glen Teg, High Street, Bangor, N. Wales.  
ROBINSON: DONALD DOUGLAS, c/o The Architectural Association, 34, Bedford Square, W.C.1.

## Notices

THE ANNUAL GENERAL MEETING,  
12 MAY, 1930.

The Ninety-Sixth Annual General Meeting will be held on Monday, 12 May, 1930, at 8 p.m., for the following purposes:—



To read the minutes of the Ordinary General Meeting held on 28 April, 1930; formally to admit members attending for the first time since their election.

To receive the Annual Report of the Council and Standing Committees for the official year 1929-30, printed on the preceding pages of this issue of the JOURNAL. Copies of the Report will be available for members at the meeting.

To nominate candidates (two members) for the office of Hon. Auditors for the ensuing year.

To receive the list of attendances at the Council and Standing Committees during the Session.

#### EXHIBITION IN THE R.I.B.A. GALLERIES.

An Exhibition of "Architects' Drawings of 1800-1830" is now being held in the R.I.B.A. Galleries and will close on Saturday, 24 May 1930. The Exhibition is open daily between the hours of 10 a.m. and 8 p.m. (Saturdays, 10 a.m. to 5 p.m.).

#### THE ANNUAL DINNER 1930.

The Annual Dinner will take place on Thursday, 15 May 1930, in the Guildhall, E.C. (by kind permission of the City Corporation). Full particulars were issued with the last copy of the JOURNAL.

All members of the R.I.B.A. and of the Allied Societies are cordially invited to make early application for tickets for themselves and their guests. The price of tickets is £1 15s. each for members and for members' guests (inclusive of wines, cigars, etc.).

A limited number of seats will be reserved in the Gallery of the Guildhall in order that members and their friends who are unable to attend the Dinner may have an opportunity of hearing the speeches.

It is expected that the Dinner will end at a rather early hour, and facilities will be given for visiting the Guildhall Art Gallery, Council Chamber and Library.

Each member applying for seats in the Gallery will receive not more than two tickets, admitting either ladies or gentlemen, which will be allotted in order of applications.

Members who wish to take advantage of this arrangement are requested to make early application to the Secretary R.I.B.A., stating whether they desire one or two tickets.

#### BRITISH ARCHITECTS' CONFERENCE, NORWICH.

18 TO 21 JUNE 1930.

The annual conference of the Royal Institute of British Architects and its Allied Societies will take place at Norwich from 18 to 21 June 1930. The Norfolk and Norwich Association of Architects have in hand the preparation of a most attractive programme, and particulars will be issued in due course.

All members and students of the R.I.B.A. and all members of the Architectural Association and of the Allied Societies are cordially invited to attend the Conference.

It is expected that there will be a large attendance of members from all parts of the country, and they are

urgently requested to arrange for their hotel accommodation at the earliest possible date so as to avoid the risk of disappointment. When communicating with Norwich hotels please mention R.I.B.A. Conference, as a number of rooms have been specially reserved for members.

The Executive Committee of the Conference have kindly furnished the following list of hotels and boarding houses, with charges:—

Place and Name.	Bed and Breakfast.	Full Board per day.
<b>HOTELS.</b>		
<i>Norwich—</i>		
Royal Hotel, Prince of Wales Rd. . . . .	10/-	21/6
Maid's Head Hotel, Wen- sum St. . . . .	10/-	21/6
Bell Hotel, Orford Hill . .	8/6	—
Castle Hotel, Castle Meadow . . . . .	8/-	16/-
Mortimers Hotel, St. Giles St. . . . .	7/6	12/6

#### PRIVATE HOTELS AND BOARDING HOUSES.

<i>Norwich—</i>		
Lansdowne Hotel, Thorpe Rd. . . . .	10/-	15/-
Heathcote, Unthank Rd. . .	8/-	15/-
Evening Hill, Cambridge St. . . . .	8/6	12/6
Mrs. Nicholson, 114 Thorpe Rd. . . . .	8/6	12/-
Mrs. Johnson, Ivy Bank, Thorpe Rd. . . . .	6/6	12/-
Oxford House, St. An- drews . . . . .	—	10/6

#### HOTELS.

<i>Wroxham (7 miles from Norwich)—</i>		
King's Head Hotel . . . .	10/6	20/6
Keys Hill Hotel . . . . .	10/6	21/-
<i>Brundall (6 miles from Norwich)—</i>		
Riverside Hotel . . . . .	7/6	18/-
<i>Cromer—</i>		
Grand Hotel, West Parade . . . . .	10/6	18/-
<i>Gt. Yarmouth—</i>		
Royal Hotel, Marine Parade . . . . .	8/6	12/-

#### GARAGE ACCOMMODATION.

The following garages are within a short distance of the Conference Headquarters:—

	Tel. No.
Bussey & Sabberton Bros., Palace St. . .	1175
Delves Motors, Ltd., Prince of Wales Rd. .	222
Mann Egerton Co., King St. . . . .	480
Norwich Motor Co., Recorder Rd. . . . .	1600
Maudes, Ltd., Prince of Wales Rd. . . . .	2223
Howes Garage, Chapel Field North . . . .	1260
Clarence Garage, Thorpe Rd. . . . .	197

Motor Parks are in All Saints Green, Cattle Market, St. Martin-at-Palace Plain, St. Andrew's Hall Plain, Tonabland, Riverside Rd., Market Place.



## MEMBERS' TOUR TO THE UNITED STATES AND CANADA

In view of the success which attended the visit to the United States and Canada of a party of members of the R.I.B.A. last year, and as many members who were unable to avail themselves of that opportunity expressed a desire to undertake such a trip on a future occasion, it has been decided to organise a further party this year.

The numerous advantages to be gained by undertaking a visit to the United States and Canada from an architectural point of view will be obvious, particularly when the visit is made in company with fellow-members of the Institute.

The suggested tour will include New York, Philadelphia, Washington, Detroit, Niagara Falls, Toronto, Ottawa and Montreal, and notes regarding the places of interest from an architectural standpoint, compiled by Mr. Percy E. Thomas, O.B.E., F.R.I.B.A., the leader of last year's party, will be available for members.

The duration of the trip will be approximately one month, and the cost, including cabin class accommodation on the Atlantic steamers, hotel accommodation in the United States and Canada, rail fares, etc., will be about £80. This amount is exclusive of meals ashore, gratuities, transfer of passengers and baggage between stations, steamers, hotels, etc., and sight-seeing trips.

The party will travel from Liverpool for New York by the Cunard Liner *Samaria* on 3 July, returning by the *Ascania* from Montreal to Plymouth and London on 25 July.

Relatives and friends of members will be welcomed.

Members interested are requested to apply to Mr. H. T. Leese, The Cunard Steamship Company, Ltd., 26-27, Cockspur Street, London, S.W.1, who will be pleased to forward a complete itinerary, etc., on request.

## OVERSEAS APPOINTMENTS.

Members contemplating applying for appointments overseas are recommended to communicate with the Secretary R.I.B.A., who will supply them with any available information respecting conditions of employment, cost of living, climatic conditions, etc.

WILLIAM H. HAMLYN.

Hon. Secretary, R.I.B.A. Salaried Members Committee.

## INCOME TAX ALLOWANCES.

A Member is anxious to ascertain whether relief in respect of expenditure for entertainment of clients is normally claimed by and allowed to other Members. The Secretary R.I.B.A. will be glad to hear from any Members who have had experience in making claims for allowance of this expenditure.

## Queries and Replies

[A large number of questions on points of professional practice and technical interest are addressed to the Practice and Science Standing Committees and to other Committees of the Institute.

The Council, on the recommendation of the Science Standing Committee, have decided to adopt the procedure of publishing such queries in the *Journal* when on matters of general interest, together with the replies of those members who, having special knowledge and experience of the particular questions, have been asked to express their opinions upon them. The scheme is based upon that adopted by the Surveyors' Institution.

The identity of the member seeking the information will not be disclosed, but the replies published will be signed by the members who have supplied them.]

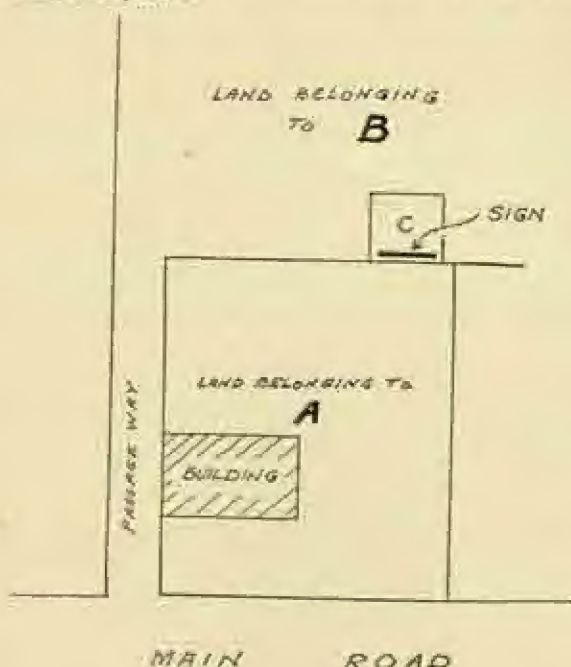
## Query No. 6.

"A" is the Freeholder of a piece of land (only partly built upon) fronting a main road.

"B" is the Freeholder of a narrow passage way (at the side of "A's" land) and also land at the back of "A's" property.

"B" has lately erected a one-storey building at "C" on plan, having a flat roof, and has placed on the flat roof a large electric sign as a trade advertisement, which can be seen from the main road over the unbuilt-on portion of "A's" land.

If "A" takes no steps to protect his rights, is it possible for "B" to acquire an easement for the sign after a number of years?



## Further reply to Query No. 6.

In my view this question is not one coming within the province of the architect, and should a member of the Institute be asked for an opinion in the matter I would suggest that his reply should be that this question is one to be referred to the client's solicitor.

I am advised that there can be no easement to throw light on or across another's ground.

Nothing which is so vague and incapable of definition can be made the subject of a grant, which is the only way of creating an easement.

The easement of viewing light is an exception made because it is necessary for the welfare of mankind to get a certain amount of light in through their windows.

The answer therefore would be that it is not possible for "B" to acquire the easement for the sign.

J. EMMET FRANCK (F.).

At the request of several members, copies of the questions and answers are now printed as separate leaflets and can be obtained free on application to the Secretary.



## Competitions

### CHELMSFORD: PUBLIC LIBRARY AND MUSEUM.

The Chelmsford Corporation invite architects to submit in open competition, designs for a New Public Library and Museum at a cost of £25,000.

Assessor: Mr. H. V. Lanchester [F.].

Last day for receiving designs, 14 June 1930.

Conditions of the competition may be obtained on application to Mr. G. E. Barford, Town Clerk, Town Clerk's Office, Chelmsford. Deposit £1 1s.

### ENNISKILLEN: NEW MASONIC HALL.

The Masonic body of Enniskillen invite architects practising in Ireland, to submit, in competition, designs for a new Masonic Hall to be erected in Enniskillen.

Assessor: Mr. John Seeds [F.].

Premium: £50.

Conditions of the competition may be obtained on application to Mr. R. W. Smith, Hon. Secretary, Building Committee, Masonic Hall, Enniskillen. Deposit £1 1s.

Conditions have not yet been received.

### KINGSTON-ON-THAMES: PUBLIC BATHS.

The Kingston-on-Thames Corporation invite architects to submit in open competition, designs for the erection of public baths, with the use of one as a public hall.

Assessor: Mr. J. Ernest Franck [F.].

Premiums: £300, £200, £100 and £50.

Last day for receiving designs, 14 June 1930.

Conditions of the competition may be obtained on application to Mr. A. W. Forsdike, Town Clerk, Town Clerk's Office, Kingston-on-Thames. Deposit £1 1s.

### LIVERPOOL: PROPOSED PIER HEAD IMPROVEMENTS.

The Liverpool City Council propose to offer premiums of 1,000 guineas and 500 guineas in connection with a competition for the improvement of the amenities of the Pier Head. [Conditions are not yet available.]

### LUTON: TOWN HALL.

The Town Council of Luton invite architects to submit, in open competition, designs for a new Town Hall and Municipal Buildings, at a cost of £250,000.

Assessor: Sir A. Brunwell Thomas [F.].

Premiums: £500, £300, £200, and £100.

Last day for receiving designs, 31 July 1930.

Conditions of the competition may be obtained on application to Mr. W. Smith, Town Clerk, 2 Upper George Street, Luton. Deposit £2 2s.

### WEST HUMBERSTONE: LIBRARY.

The Leicester Corporation propose to invite local architects to submit, in competition, designs for a Library, to be erected at West Humberstone.

Assessor: Mr. Hugh Gold [F.].

Premiums: £75, £50 and £25.

[Conditions are not yet available.]

### WORTHING: MUNICIPAL BUILDINGS.

The Corporation of Worthing invite architects to submit, in open competition, designs for new Municipal Buildings, to be erected in Chapel Road, Worthing.

Assessor: Mr. Henry V. Ashley, V.-P.R.I.B.A.

Premiums: £350, £250, £150 and £50.

Last day for receiving designs, 5 July 1930.

Conditions of the competition may be obtained on application to Mr. J. Kennedy Allerton, Town Clerk, Worthing. Deposit £1 1s.

## Members' Column

### OFFICE ACCOMMODATION.

ARCHITECT with established practice in London offers part office with use of technical and clerical staff upon terms to be arranged. Apply in first instance to Dollman and Pritchard, Solicitors, 32 Tavistock Square, London, W.C.1.

### OFFICE ACCOMMODATION WANTED.

WANTED, small office, separate entrance, near Bedford Square, Gower Street, Euston Road, Marylebone Road or Upper Baker Street. Rent about £30 per annum inclusive of light, heat and cleaning.—Apply Box 2404, c/o the Secretary R.I.B.A., 9 Conduit Street, London, W.1.

### ARCHITECTS' BENEVOLENT SOCIETY

(Insurance Department).

#### HOUSE PURCHASE SCHEME

(for property in Great Britain only).

The Society is able, through the services of a leading Assurance Office, to assist an Architect (or his client) in securing the capital for the purchase of a house for his own occupation, on the following terms:—

#### AMOUNT OF LOAN.

Property value exceeding £666, but not exceeding £2,500, 75 per cent. of the value.

Property value exceeding £2,500, but not exceeding £4,500, 66½ per cent. of the value.

The value of the property is that certified by the Surveyor employed by the Office.

#### RATE OF INTEREST.

In respect of loans not exceeding £2,000 5½ per cent. gross.

" " in excess of " 5½ " "

#### REPAYMENT.

By means of an Endowment Assurance which discharges the loan at the end of 15 or 20 years, or at the earlier death of the borrower.

#### SPECIAL CONCESSION TO ARCHITECTS.

In the case of houses in course of erection, it has been arranged that, provided the Plan and Specification have been approved by the Surveyor acting for the Office, and the amount of the loan agreed upon, and subject to the house being completed in accordance therewith, ONE HALF of the loan will be advanced on a certificate from the Office's Surveyor that the walls of the house are erected and the roof on and covered in.

NOTE.—In 1928, over £20,000 was loaned to architects under this scheme, and as a result over £100 was handed to the Benevolent Fund.

If a quotation is required, kindly send details of your age next birthday, approximate value of house and its exact situation, to the Secretary Architects' Benevolent Society, 9 Conduit Street, London, W.

### R.I.B.A. JOURNAL.

DATES OF PUBLICATION.—1930.—10, 24 May; 7, 21 June; 12 July; 9 August; 26 September; 18 October.



# Journal of the Royal Institute of British Architects

THIRD SERIES

VOL. XXXVII. No. 13

10 MAY 1930

## Contents for 10 May 1930

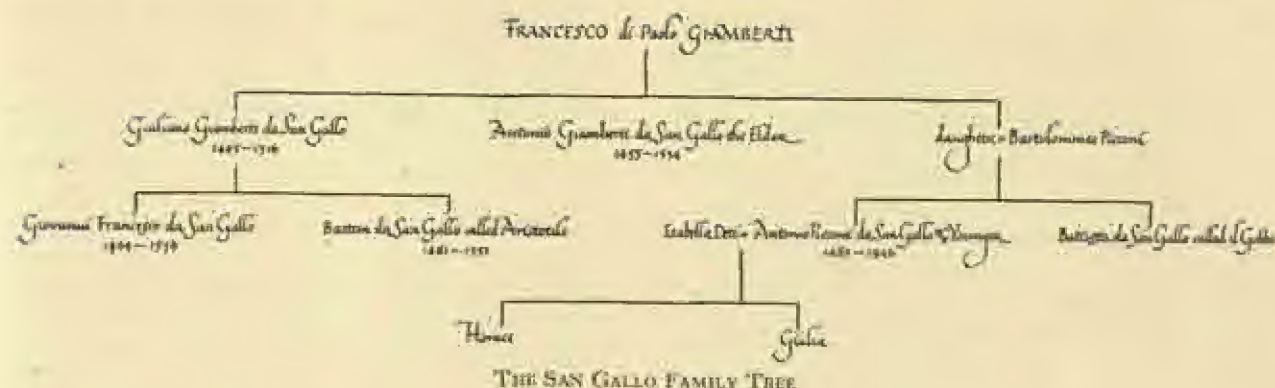
	Page
THE ROCCA PAOLINA, PERUGIA. From a Drawing by Thomas Worthington, 1848 .. .. .	<i>Frontispiece</i>
ANTONIO DA SAN GALLO THE YOUNGER. By J. Hubert Worthington, O.B.E., M.A. [P.] .. .. .	443
DISCUSSION :	
THE RT. HON. SIB RENNELL RODD, G.C.B., G.C.M.G., G.C.V.O. .. .. .	471
PROFESSOR W. G. NEWTON [P.] .. .. .	471
THE RT. REV. BISHOP GORE, D.D. .. .. .	472
PROFESSOR BERESFORD PITE [P.] .. .. .	472
PROFESSOR BERNARD ASHMOLE, M.C., M.A. .. .. .	472
ARTHUR T. BOLTON [P.] .. .. .	473
ITALIAN MASTERS AND OTHER DESIGNERS—Continued. By Major Hubert C. Corlette, O.B.E., F.S.A. [P.] .. .. .	475
THE CHURCH OF THE HOLY SEPULCHRE, JERUSALEM. By Sidney Toy [P.] .. .. .	487
ALLIED SOCIETIES :	
ESSEX, CAMBRIDGE AND HERTS SOCIETY OF ARCHITECTS .. .. .	488
THE SOUTH WALES INSTITUTE OF ARCHITECTS .. .. .	488
COUNCIL FOR THE PRESERVATION OF RURAL ENGLAND .. .. .	488
NOTICES .. .. .	489
COMPETITIONS .. .. .	491
MEMBERS' COLUMN .. .. .	491
MINUTES .. .. .	492
A.B.S. SCHEME OF INSURANCE .. .. .	492





THE ROCCA PAOLINA, PERUGIA  
Now destroyed with the exception of the Etruscan Gate  
From a drawing by Thomas Worthington, 1848





## Antonio Da San Gallo the Younger

BY J. HUBERT WORTHINGTON, O.B.E., M.A. [F].

[A précis of this paper was delivered before the Royal Institute of British Architects on Monday, 7 April 1930.]

AN apologia is needed for the subject of this paper, for historical architecture is not acceptable in these days. It will be said, "Why does this fellow want to exhume a Renaissance corpse for us?" Well, I don't look upon Antonio as a corpse, but rather as an enlivening spirit. I am profoundly convinced that the great humanists, and what they stood for, have a vital lesson for us to-day, not so much in their literal mode of expression as for their attitude of mind, and the common basis of experience and humanity that unites us to them.

It is useless for a student to go to Italy unless he goes with a mind in tune, with a certain background of study to make sympathetic observation intelligent, and so enable him to learn real lessons from these inimitable teachers.

Only by a right attitude, free from bias, is it possible to disentangle the active and inspiring principle from the mass of extraneous accretion and passing fashion. It lies with the beholder whether he finds in the Italian Renaissance the effete pedantry or uncontrolled extravagance of its senility, or the fresh zest of its youth and the balanced serenity of its maturity.

It is important to remember that vocational training does not produce the highest results. We must not develop our souls entirely on the theoretical calculation of ferro-concrete, the wiping of plumbers' joints, the mysteries of heat and light,

the scientific testing of modern substitutes. Admittedly we live in an age of unprecedented change, when science predominates over art as never before. But art will always have its place in the heart of man, and in an age of machines and mass production there is much to be learned from the catholicity of mind, the fearlessness in the realms of thought, the passion for knowledge for its own sake, knowledge won by taking infinite pains, the intensity of feeling for the real things of life, the infinite variety of the great Renaissance humanists. In aspiring to be modern let us recognise their contribution to modernity, and acknowledge that they laid the foundations upon which modern thought is built. Historical study need not have a deadening effect on creative art, and we must be prepared to admit the profound truth of historical continuity.

One may well ask here, whether the Italian Exhibition has had a real influence on the architects of England, or have the arts become so segregated that the spell of it has been lost on us? If so, we are in a bad state. But that can hardly be, for the soothing harmony of the Italian spirit places the art of the quattrocento and early cinquecento beyond and above fashion, and in those days painting, sculpture and architecture were one.

With Uccello and Pesellino let us picture the glory of battle array, with Fiorenzo di Lorenzo the



charm of daily life, set amid fair buildings, with Piero della Francesca, Ghirlandaio, and Botticelli their warm humanity, splendid dress, and sumptuous banquets. With copes and tapestries, metal-work and pottery, cassones and bronzes, lutes and viols, let us endow these buildings, now so many of them put to meaner uses, with the rich pageantry of a life where beauty of form and colour has its due place in the scheme of things. The simple spaciousness of their architectural setting was a perfect background for this artistic wealth.

To do justice to Antonio, you must imagine his buildings with the ceremonial life for which he made them, and bring in the Italian sunshine, with all the glory of light and shade and shadow which were essential factors in designing.

#### HIS LIFE.

Antonio Picconi da San Gallo il Giovane, or the Younger, was born in 1485. He came of a fine architectural stock, being a grandson of Francesco di Paolo Giamberti, who had built for Cosimo de' Medici, and a nephew of Giuliano da San Gallo and Antonio da San Gallo the Elder. Battista da San Gallo, il Gobbo, who was also a learned architect and worked with him, was his brother, and Francesco and Aristotile were his first cousins.

His mother, presumably a sister of Giuliano and Antonio the Elder, married Bartolommeo Picconi, of Mugello, a cooper, who apprenticed the son to a carpenter. This was in the stirring days of the Borgias. The carpenter's shop gave plenty of scope to artistic talent, for in addition to constructive work and setting out, wood-carving and intarsia gave a good groundwork for the young architect. Thus Antonio, like his uncles before him, grew up in the building trade, not in the bottega of the goldsmith.

The young man was ambitious, and left Florence for Rome in 1503, to work with Giuliano, his uncle.

The impetuous Julius II had just become Pope, and was launching his great schemes for a new S. Peter's, and a new Vatican, and the opinion of artistic Rome was divided upon the selection of the architect. Giuliano had been Julius' favourite before his elevation to the Papacy, and naturally expected the job, but Bramante had arrived in Rome from Milan three years before, and had already made a great name for himself. The Pope chose Bramante, and Giuliano da San Gallo,

suffering from the stone and pique, returned to his native Florence.

The young Antonio, who always had an eye for the main chance, got into Bramante's office, where he found Baldassare Peruzzi as his senior assistant, and throughout his life he owed a great deal to that greater artist. Raphael, too, must have often been in his company. Here was a career already half made. He had the prestige of the family name, a training in the best office, in the best moment, of Italian Renaissance architecture, and a capacity for attracting the right kind of patron. Moreover Bramante had a stroke, and his hands were paralysed, and though as alert in mind as ever, he had to depend to an unusual degree on his assistants. The patient working out of large schemes, and the responsibility of supervision gave carefulness, experience, and self-confidence to his draughtsmen.

Antonio was determined to become the Bramante of the future, and he did.

It is interesting to relate him to his contemporaries in the year 1503, when he entered Bramante's office. He was 18, his master 59. His uncles were 53 and 48 respectively. Leonardo was 51, Michelangelo 29, Titian 26. Jacopo Sansovino and Sanmichele, both studying in Rome, were 17 and 19, Raphael was 20, Peruzzi 22. Did the world ever hold such a galaxy of talent at one moment?

In 1506 the foundation stone of S. Peter's was laid with due ceremony, and from that time until his death, Antonio, as will be seen later, was in close touch with the scheme.

He carried out two or three immature works at this time, including the Palazzo Palma and S. Maria di Loreto.

When Julius died in 1513, Leo X, a prince among patrons, brought Renaissance art to its fullest development. Raphael, who had inherited Bramante's huge office in 1514, found Antonio, il Gobbo, his brother, and Francesco, his cousin, invaluable factors in an architectural organisation that he could not possibly control alone. It was not only on S. Peter's that they helped him. There are few plans of the period more careful than those that the San Galli drew for the Villa Madama, though Giuliano Romano is generally given credit for this work, and Francesco built the exquisite little Palazzo Pandolfini, at Florence, for his master.

Antonio gradually emerged into private practice



in the pontificate of Leo. He won the fortifications of Civitavecchia in competition, and built them. Then Leo took him for the summer to Monte Fiascone to work on the Papal castle.

The Linotte Palace, one of his smallest, but most notable, works, belongs to this period, and so does the Palazzo Costa.

Leo died, and Adrian, after trying to suppress the arts, was succeeded by the Cardinal Giulio de' Medici, on whose lovely villa Antonio had been engaged under Raphael, and Clement VII, of unhappy memory, at once recognised the talent of Antonio, but made use of him, primarily, as his chief designer of fortifications.

In 1526, at the age of 41, Antonio fell in love with a young Florentine girl of great beauty, Isabella Deti, and married her, in spite of the strong opposition of his respectable family. We are told that he was worn out by her pride and extravagance. Still, they lived together for twenty years, had a boy, Orazio, and a girl, Giulia, and built a large house for themselves in the fashionable Via Giulia.

But an event occurred, just after their wedding, that must have seemed like the end of the world to the newly married pair. Rome was sacked in 1527.

One cannot dwell upon the horrors of this dreadful calamity that made the Eternal City a desolation, but Antonio fled with the Papal Court and his young wife, to Orvieto, and made the great Pozzo there. In the panic which followed he became immersed in military engineering, and rode from place to place, strengthening the defences of the Papal states.

The world was full of significant events. Henry VIII of England, whose reign almost coincides with the years of Antonio's work, broke with Rome. Protestantism was making itself felt in northern Europe. François Premier ruled France, Charles V was Emperor, and Italy was full of Spanish soldiery. But happier days were in store, and Antonio was destined to enjoy a great epoch of reconstruction.

The architect closely associated with the great personalities of his age develops from contact with brilliant minds and large ideas. Antonio had already lived through big history, but the influence of Cardinal Alessandro Farnese was so important that we must consider him before going into Antonio's work in detail.

### POPE PAUL III.

Alessandro Farnese, known to history as Pope Paul III, was the child of his age, an age with standards very different from ours, and we must not judge him without taking into account his environment and his predecessors. Born in 1468 and educated under Pomponius Lætus, and in the Academy of Lorenzo de' Medici at Florence, he represented the best culture of that great period. He was a master of the written and spoken word, a connoisseur of antiques, a great patron of the arts of his own generation. It may, indeed, be said of him that he lived life to the full.

For some youthful scrape, he was locked up in the Castle of S. Angelo, and, no doubt, he deserved it, for his mother didn't think fit to bail him out. His sensational escape, made whilst his guards were watching the Corpus Christi procession, was a bold piece of dare-devilry, and he retained an affection for his prison throughout his life, and added to its



POPE PAUL III. By Titian



amenities when Pope. Though openly acknowledging a natural son and daughter, he received the red hat in 1493, at the age of twenty-five, through the good graces of his sister, Giulia, the Bellissima, who was the favourite of the Borgia Pope, Alexander VI. Therefore he was known as "The Petticoat Cardinal."

Alessandro was ambitious for himself and for his family, yet, though from this moment he coveted the Papacy, he had to wait forty years as a cardinal before he realised his life's aim. The census of 1527 shows that, when still a cardinal, he had a princely court of over three hundred, and he employed Antonio to begin the greatest of all the Roman palaces that bears his name. He had a villa, too, on the family estates, by Lake Bolsena.

When Leo died he nearly succeeded, when Adrian died he thought his chance sure, but Clement stole twelve more years of the Papacy from him. He held the bishoprics of Bertinoro, Venice, Parma, Valva, Sulmona, St. Pons, Benevento and Frascati, besides being Cardinal titular of Sant'Eustachio.

At last, on October 14, 1534, in his 67th year, he was elected Pope, and popular enthusiasm knew no bounds. He was the first Roman-born Pontiff for over one hundred years, and the fifteen years of his reign proved to be one of the happiest periods in the history of Rome. It is his work for Rome and as a patron of the Arts that concerns us here, rather than his astute conduct of world politics, his part in the Catholic reaction, or the founding of the Jesuits and the Inquisition.

Rome had never recovered from the horrors of the sack of nine years before, but Paul now initiated great reforms. He recalled the University of Rome to life, and was one of the pioneers of modern town planning. By a curious irony it was the triumphal entry of the Emperor Charles V, whose troops had caused worse devastation to the Eternal City than even the Huns and Vandals, that was the pretext for these great and enduring improvements.

Paul gave the word and provided the will power and 50,000 ducats. Latino Giovenale Mannetti was his chief adviser. In fifteen weeks the Emperor's Highway, three miles long, was opened, levelled, paved and decorated. Two hundred houses and four churches were demolished. The famous buildings of ancient Rome were brought into full view. The rubbish heaps, the slums were swept away, the streets were

reformed, and fine sites were created, to the great benefit of the health and comfort of the people. It takes power to make reforms like these.

Cardinal Giovanni Gaddi was in charge of the decorations, and Antonio da San Gallo il Giovane had supreme control over the sculptors, painters, carpenters, and stonemasons. Peruzzi had died in January, 1536, and in his *Taccuino* in the Biblioteca Comunale at Siena are fifteen studies for triumphal arches, and as the preparations had been discussed in November, 1535, there can be little doubt that these studies were for the reception of Charles. No doubt, here, as elsewhere. Antonio benefited from Peruzzi's fertile brain. The most noteworthy of these triumphal arches was the one which Antonio made in wood at the Palazzo S. Marco, to serve two streets. Vasari gets very eloquent about this work, and says that if it had been executed in marble it would have been one of the Seven Wonders of the world—but that is just Vasari. It had four Corinthian columns on each side, covered with silver, the capitals being overlaid with gold. There were eight painted scenes showing acts of the Emperor, and as the whole was crowned with figures, trophies of arms, and the Papal and imperial heraldry, it must have been a rather vulgar piece of scenic work. There were too many painters and sculptors working on it; indeed, Antonio had an army of collaborators—his ever faithful brother Battista il Gobbo, Martin Heemskerck, Raffaello da Montelupo, l'Indaco, Girolamo Pilotto, and others.

The improvements to Rome did not end with the stately ceremonies in connection with Charles V's visit. Mannetti continued to be "maestro delle strade" with Angelo dei Bufalo de' Cancellieri as administrator, and Bartolomeo Barouinvas as engineer. Modern Rome was being made. From 1536 to 1549 the great works went on. Streets and squares and mighty buildings took form on every side, and Antonio, as chief architect to the Pope, had a large share in the work.

Meanwhile, Paul and his family set about putting their own house in order too. The Farnese Palace is the outward and visible sign of a great ambition. His family married well. His nephew Ottavio married the daughter of the Emperor Charles V, Orazio Farnese the daughter of the King of France, Alessandro the Infanta Maria of Portugal. Pier Luigi, the eldest son, and no credit to him, became Gonfaloniere of the



Church, Duke of Castro and Nepi, and later Duke of Parma and Piacenza, and his heir became Cardinal Alessandro Farnese the Younger who built the Pentagon of Caprarola. Tiberio Crispo, another offspring, also joined the Sacred College. It is a remarkable record.

Paul led a full hard life. The political and religious upheavals of his Pontificate, and family griefs weighed him down. Pier Luigi was murdered at Piacenza in 1547, and his grandsons whom he had loved so dearly schemed against him. He died on the 10th day of November, 1549, at the age of 81, after a reign of fifteen years.

He restored the Papacy and he restored Rome, where his memory is revered, and he will live as a great patron of the Fine Arts and of fine building in particular. He revived the splendour of the Papal Court. Art and learning flourished.

Titian's great portrait brings his powerful personality before us. It is a noble head, rugged and furrowed, with hawk-like eyes, a highly intelligent nose, flowing white beard, and sensitive mouth. We see in his aspect something of a hard calculating relentlessness that nothing could withstand, and something of the astuteness which baffled foreign ambassadors, something of that courageous determination that never relinquished a project he had embarked upon. His hands complete the impression of power and grasp.

The rest of Antonio's life is interwoven with the life of the great Pope Paul and his family, not only as architect-in-chief to S. Peter's and the Vatican, or in fortifying Rome and improving the Castle of S. Angelo, but primarily in the production of his *chef d'œuvre*, the Farnese Palace, on which he was engaged from about 1514 until death in 1546. This building will be considered in detail later. But in addition to his architecture proper, at Nepi, Civitacastellana and Caprarola, at Faenza, Fabriano, Ascoli, and Capo di Monte, at Castro, the lair of Pier Luigi, with its walls and citadel, its streets and palaces, Antonio forged strong links in the Farnese chain of fortifications.

But the greatest of all his military works was the citadel of Perugia, one of the most remarkable creations of its time, which, like Castro, is no more.

Finally, Antonio was engaged on his own home, untrammelled by clients and committees, with only himself and his ambitious wife and growing family to please. The Sacchetti Palace gives us an insight into his home life.

Antonio died in October, 1546, in his 62nd year, of a fever which he contracted when arbitrating for the Pope on a dispute between the people of Narni and Terni about the lake of Marmora.

The funerals of distinguished artists in those days were great functions, and Antonio was taken to Rome and buried with pomp and ceremony in a vault near the Chapel of Pope Sixtus in S. Peter's, for the Arts had a recognition in the eyes of Renaissance Rome. Isabella put up a pious epitaph in memory of her husband.

#### THE QUARREL WITH MICHELANGELO.

But success is often tempered with disappointment, and the last years of Antonio's life were clouded by the miserable feud which arose between him and Michelangelo. They were the two great men of their age, and Michelangelo had practically given up painting and sculpture, and was devoting himself more and more to architecture and military engineering.

Paul did not treat Antonio well, for he had served him long before he became Pope. But the Farnese seems to have been bent upon fostering the smouldering jealousy of these two great and cantankerous artists, till it produced a flame that was not extinguished even with Antonio's life. For the rest of his days the faction of the San Gallo, as Vasari calls them, conspired to bring about Michelangelo's downfall. It was an artistic vendetta unique in the annals of architecture, but we can hardly blame Antonio for this lamentable tragedy. He was supplanted on his great life work, the Farnese Palace, he was ousted in his great schemes of military engineering for Rome, and his design for St. Peter's was vilified beyond all limits of human endurance.

The first serious clash does not seem to have happened till 1544, two years before Antonio's death.

The great Farnese Palace on the Campo di Fiore was slowly moving to its completion. San Gallo had carried the walls up to the second floor. Paul, who hitherto had loved Antonio dearly, seems to have begun to doubt his infallibility, and whether this first showed itself in connection with the Farnese cornice, or the fortifications of the Leonine city, it is hard to say. Paul was not satisfied with Antonio's design, and as he was coming more and more under the spell of Michelangelo, he asked Michelangelo for a report



on the Cornice. The document remains, and it is not surprising that it caused a conflagration in the profession. Supreme as he was as both sculptor and painter, Michelangelo had not as yet justified his existence as an architect, for his Laurentian Library at Florence was full of blunders. It was inexcusable that he should have issued a report almost without parallel for its scathing bitterness. Nothing could have been more humiliating or more cruel to the leading architect of his time. It was directed, too, at his greatest work, and one which posterity still recognises as one of the supreme buildings of civil architecture. The result of the report was a competition, the result of the competition was that Michelangelo won, the other competitors, besides Antonio, being Perino del Vaga, who had worked on Antonio's buildings, Sebastiano del Piombo, and Vasari.

Michelangelo took trouble over the cornice and set up a full size model on the building, and the finished product is sound and true to the Vitruvian rule. Michelangelo finished the Farnese Palace, except for the unfortunate loggia facing the Tiber, and was responsible for the uncomfortable central window over the *portone* with the Farnese Arms above, and for the upper stories of the Cortile. Antonio's proud nature was deeply wounded, and the large band of his adherents rose in righteous indignation and vowed a deadly enmity. Their aged master was insulted beyond all limits of forgiveness. "La Setta Sangallesca," as they came to be known, pursued their vengeance long after their leader's death, and plagued Michelangelo till his life's end.

The second episode in the quarrel between these illustrious and uncompromising rivals was concerned with a scheme for the fortification of Rome. Rome had never felt secure since she had been taken by assault in 1527, and since that date she had been threatened from the sea by Turkish and Barbary pirates. Accordingly, in 1544, Paul III set up a commission to decide on the steps to be taken to strengthen the Vatican. Pier Luigi, Gonfaloniere of the Church; Tiberio Crispo, Captain of the Castle of S. Angelo; Gian Francesco Montemellino the engineer; Alessandro Vitelli the strategist, Vincenzo Gioardi, chief of artillery, and Michelangelo, who had earned a great reputation for his defences of Florence in 1529, were the members. Paul III himself presided at

the meeting when Antonio, as architect in chief, produced his plans. His scheme consisted of eighteen bastions, and the citadels of S. Angelo and the Lateran. Vasari brings the scene vividly before us: "After many discussions, Michelangelo's opinion was asked. He, being opposed to the advice of San Gallo and the others, said so frankly, to which San Gallo retorted that sculpture and painting were his arts, not fortification. Michelangelo replied that he knew but little of sculpture and painting, but as he had thought much about fortifications, and had experience, he thought he knew more than all the others there, and in the presence of the company he pointed out many of the errors committed by Antonio. The dispute waxed so hot that the Pope was obliged to impose silence, but before long Michelangelo brought designs for all the fortifications of the Borgo, which prepared the way for all that was done afterwards, and led to the abandonment of the S. Spirito gate nearly completed by San Gallo."

It appears that Michelangelo's scheme shortened the line of defence, and that Pier Luigi and Montemellino agreed with this. Michelangelo did not advocate the abolition of the whole of Antonio's scheme, but suggested that it should be altered and that Montemellino should be put in charge, and that he would be ready to offer what assistance he could. Although Antonio remained architect-in-chief until his death, very little of his scheme was carried out by him.

The Porta S. Spirito has survived as a majestic architectural fragment. In plan it has the same concave curve as the Baneo di S. Spirito. The central arch is flanked by niches, and Antonio is faithful to his Doric. It has a virile strength well suited to a piece of military design.

The Bastione di Belvedere, which towers magnificently at the north-eastern end of the Vatican gardens, was begun from Antonio's plans, and finished by Michelangelo. The Bastione del Priorato on the Aventine, the Bastione dell' Antoniana, by the baths of Caracalla, and the walls behind the Vatican were part of the scheme.

After Antonio's death, Michelangelo, in association with the wretched Melegghino, did a little, but the bulk of the fortifications were eventually carried out by Jacopo Fusto Castriotto of Urbino.

[Uffizi drawings, 1505, 1507, 1514, show the Roman Fortifications.]



## MICHELANGELO AND S. PETER'S.

ANTONIO AND  
S. PETER'S.

The third and last episode in the enmity between Michelangelo and San Gallo centres round S. Peter's. This is not the place to give a full description of the long and tedious process that was involved in the completion of the central church of Christendom. It took 10 architects and 20 popes to build it, and the work lasted

ceeded his kinsman as architect to S. Peter's, Leo X appointed Antonio as his assistant or second architect on 22 January 1517, and he worked with Raphael till 6 April 1520. Raphael, as we know, made the fatal mistake of departing from Bramante's Greek Cross plan, and introduced the Latin Cross. Peruzzi, who was formally elected architect-in-chief on 1 August 1520, in succession to Raphael, held the office, with the exception of a year or two after the sack of Rome, till his death in



MODEL OF ANTONIO'S DESIGN FOR S. PETER'S

100 years. Though Antonio has left little that is visible, he counts for a good deal in the history of its evolution, and the studies that show the extent of his work are reproduced in Geymüller's *Projets primitifs pour la Basilique de S. Pierre*.

When the foundation stone of Bramante's scheme was laid by Pope Julius II in 1506 it is almost certain that Antonio was working as an assistant in Bramante's office. Bramante died in 1514, and it appears that Antonio was employed for a time as a carpenter on the works. When Raphael suc-

ceeded him in 1514, he it was who produced the most beautiful plan of all, a Greek Cross more serene in scale and balance than even that of his old master. Vasari suggests that Peruzzi was poisoned by a jealous rival who wanted the post of S. Peter's. Anyhow, Paul III, who had become Pope two years before, naturally enough made his favourite architect-in-chief to S. Peter's, and he lived to hold the position for ten years.

It can hardly be said that his time was well spent. He produced a plan of his own which is neither



a Greek nor a Latin cross, but introduces a complex vestibule leading to a narthex with campanili at each end, their spires as high as the lantern of the dome. It is an unwieldy hybrid, and we can, perhaps, feel that Michelangelo's criticism of it is almost justified. The Bramante conception is murdered.

Antonio seemed determined that his design should be carried out, even though his death should intervene, for he caused his assistant, Labacco to make the stupendous wooden model that cost 4,184 crowns. It is now in the Museo Petriano, and is 28 feet long, 18 feet wide, and about 15 feet high, so that you can move about inside. The architectural treatment of the exterior is in three tiers, Doric below, then a big attic, then Ionic. The dome has arcades in two tiers, and is surmounted by a too heavy lantern, but the worst feature is the projecting porch and the vast narthex with its fussy and over emphatic towers that deprive the dome of its effect of primary mass, and the whole scheme of its concentricity. Ridiculous little obelisks and cones stick up everywhere.

It is, however, primarily the interior to which Michelangelo refers in his famous letter, No. Cd. 1, xxiv, written in 1555:

"All the architects who departed from Bramante's scheme, as San Gallo has done, have departed from the truth; and those who have unprejudiced eyes can observe this in his model. San Gallo's ring of chapels takes light from the interior as Bramante planned it; and not only this, but he has provided no other means of lighting, and there are so many hiding-places, above and below, all dark, which lend themselves to innumerable knaveries, that the Church would become a secret den for harbouring bandits, false coiners, for debauching nuns, and doing all sorts of rascality; and when it was shut up at night, twenty-five men would be needed to search the building for rogues hidden there, and it would be difficult enough to find them."

When Antonio da San Gallo il Giovane died on 3 October 1546, Paul appointed Michelangelo to all his posts, including that of architect-in-chief at S. Peter's, for life. The brief, dated 1 January 1547, names him "Commissary, prefect, surveyor of the works, and architect, with full authority to change the model, form, and structure of the church at pleasure, and to dismiss and remove the working men and foremen employed upon the same."

Michelangelo, who, with all his faults, was a severe self critic, and other-worldly to a fault, refused a salary. It was obvious at once that he was going to act ruthlessly with all that Antonio had done. He was not the man for compromise. The "Setta Sangallesca" included all kinds of people—cardinals, relations, assistants, and workmen. There can be no doubt that there had been misappropriation on the part of clerks of works and foremen, and Michelangelo at once exercised the powers the Pope had given him. Corruption was eradicated and the "old gang" was removed. Dismissal followed dismissal.

The superintendents of the fabric, the building committee, including cardinals, which the Pope had appointed, took a dislike to this high-handed and masterful innovator, and favoured the "Sect of San Gallo," but Paul, and the Popes who succeeded him, knew Michelangelo's intrinsic honesty and that he alone had the power to finish off the job.

Letters bring the whole sordid story vividly before us. Nanni di Baccio Bigio, a loyal friend and assistant of Antonio's, who finished off the Sacchetti Palace, had friends at Court in Rome, and openly defied Michelangelo, and Michelangelo could not get him off the work. The plot thickens. Paul dies and Julius III succeeds, and is friendly to Michelangelo. The Pope holds a meeting of the superintendents, foremen, and workmen, and silences the calumniators. With the election of Marcellus II the Sect begins again. Popes come and go, but still Michelangelo presses on to complete the great work, and still the Sect try to obtain his overthrow, but Paul IV and Pius IV back him up. Nanni tries to get the job for himself. The clerk of works is murdered, and the Deputies appoint Nanni di Baccio Bigio. The new clerk of works inspires a slanderous report on his master, and is dismissed.

Michelangelo suffered indeed for his initial unkindness to Antonio. The last days of his life were a burden, nor did he see the fruits of his hard labours against such heavy odds. The dome had to be completed by his successors. Luckily he had made a model of this, but the rest of his design suffered because he had left the builders in ignorance. His return to the Greek Cross of Bramante was ruined by Maderna, who lengthened the nave and spoilt the conception. But the dome is still the glory of Rome, and Michelangelo did not work in



vain. The majesty of its outline, the perfect poise, cannot be described. What Bramante, Raphael, Peruzzi, and Antonio failed to do, this old man did, or at least saw to it that it was done. He it was who had the fire and energy and ruthlessness to make the achievement possible.

But apart from S. Peter's and the Farnese Cornice, Michelangelo did architecture little good, and he precipitated the Baroque on the one hand, and drove the other party to a sterile Palladian formula. It is interesting to hear what a great French architect has to say on the subject:—

"Michelangelo was not, properly speaking, an architect. He made architecture, which is quite a different thing; and most often it was the architecture of a painter and a sculptor, which points to colour, breadth, imagination, but also to insufficient studies and incomplete education. The thought may be great and strong, but the execution of it is always feeble and naïve. . . . He had not learned the language of the art. He has all the qualities of imagination, invention, will, which form a great composer, but he does not know the grammar, and can hardly write. . . . In seeking the great, he has too often found the timid, seeking the original, he has fallen upon the strange, and also on bad taste."

It must be said in justification that he often protested that architecture was not his trade.

In this short outline of Antonio's life, a large proportion must be shared with Paul and Michelangelo, for they were the Big Three of a humanly fascinating epoch, and their lives were closely interwoven.

In dealing with the buildings of Antonio da San Gallo the Younger in detail, they have been divided under three headings: Ecclesiastical Buildings, Palaces, and Military Engineering Works.

#### CHURCHES.

As a church architect Antonio never built any thing as good as his uncle Giuliano's S. Maria delle

Carceri at Prato, or his uncle Antonio's S. Biagio, at Montepulciano. Leaving S. Peter's out of

account, his ecclesiastical output is not very important. S. Maria di Loreto in the Piazza Trajana is a familiar Roman landmark. In 1507 the Bakers' Company commissioned Antonio to build it, when he was only twenty-two years of

age. He never finished it, however, and it was not till 1580 that Giacomo del Duca completed the lantern of the dome. The plan is interesting—square outside, octagonal within, with large niches forming chapels in the angle. The internal span of the dome is 52 feet. To the east an arcade leads to the choir and cleverly arranged passages on either side connect to the sacristy behind. Though the design has suffered from subsequent additions it was never a distinguished piece of work externally. For a Corinthian order it shows the heavy hand, having coupled pilasters  $8\frac{1}{2}$  diameter high, and coarse capitals with uncarved leaves, as in the Banco di S. Spirito and the Palazzo Linotte. The entablature is one-fifth instead of one-sixth of the order, and the cornice is of a heavy type, with plain mouldings. Doric was more suited to the architect's temperament. To do justice to Antonio we must group this with the Palazzo Palma and the monument to Giovanni di Castro, and remember that he was very young.

The Tomb of Giovanni di Castro, in S. Maria del Popolo, was probably designed by Antonio, though it does him little credit. It is dated

1506, in the days of Julius II. The base, with its heraldic shields and inscription, is good, and the recumbent figure is not without

merit, but the rest is enough to make Desiderio, Mino, and Rossellino turn in their graves. The freshness of those joyous Tuscan days is gone. Montelupo, Bandinelli and Mosca are becoming the cold and soulless exponents of architectural carving, and the seeds of decadence are here.

Sculpture and architecture no longer go hand in hand; except where Michelangelo makes them, and with the advance in structural efficiency there is a falling off in mural decoration and applied sculpture. The carver becomes the drudge of the autocratic architect, the joyous equal comradeship amongst the arts is almost over. Michelangelo is more responsible for this than anyone. Michelangelo was unique; he could not communicate his genius to others; he founded no school, he suppressed all competition. No one dared cope with his *terribilità*. He finished the glorious epoch.

In S. Giacomo degli Spagnuoli, Antonio built a chapel, on the right, for Cardinal Alborense, and there is a drawing showing a scheme for the repair and improvement of the Church [Uffizi No. 904].



At the Duomo of Foligno he did the octagonal Chapel on the left of the Choir in 1527.

In 1522 Antonio undertook important work for Clement VII at Loreto. The great Pilgrimage Church of the Santa Casa, with its fortified apses and fighting galleries, had been begun by

Giuliano da Majano, and the lofty dome standing on eight pillars above the crossing was completed by Giuliano da San Gallo in 1500. Antonio the younger was brought in to repair serious cracks and dilapidations, which he did with his usual skill at this thankless kind of work, and he remodelled the interior extensively, and organised the completion of the rich marble screen that forms the casket containing the House of the Virgin. Bramante had begun this screen in 1510, Sansovino continued the work on it from 1513-1529, and Antonio with his band of carvers lavished a misspent zeal on finishing this ornate and rather dead piece of carving. Raffaello da Montelupo, Francesco da San Gallo, his cousin, Niccolò il Tribolo, Simone Coli, and Il Mosca were the architect's executants. Drawings in the Uffizi show the strengthening of the Dome [No. 141], a design for a baptistry for the same church [No. 140]; and suggestions for the Palazzo Apostolico or Regio, in the piazza in front of the church where Bramante and Sansovino had also worked before him [No. 139].

No study of Antonio would be complete without mention of his dilapidation and repair work for the Church of S. Giovanni de' Fiorentini. There had been a competition for this church.

Leo X was the assessor, and Michelangelo, Raphael, Peruzzi, Antonio and Jacopo Sansovino submitted designs. Such a galaxy of talent ought to have produced something sound, but Sansovino, who was given the work, made insufficient foundations on the banks of the Tiber. After the sack, Sansovino took refuge in Venice, perhaps to avoid the result of his failures, and Antonio, rightly famed for sound construction, was brought in to deal with this awkward problem of struggling with the river. He was successful, but the church, as we see it, is a mixture of Giacomo della Porta, Carlo Maderna, and Galilei. Michelangelo produced a fine concentric plan in the competition.

Near Viterbo on the road to Bagnaià stands the

interesting Dominican Church of S. Maria della Quercia, and Antonio designed the wooden ceiling of the nave. A boldy lettered inscription in the frieze reads as follows—PAULUS

III P.M. AEDÆ VIRGINIS AD QUERCUM VETVSTA RELIGIONE INSIGNEM ADDITIS LAQUEARIBUS EXORNAVIT MDXXXVIII. It is refreshing to turn to this sumptuous piece of work from the utilitarian buildings that occupied so much of Antonio's practice. It shows that he was capable of creating a masterpiece of decorative art. His training in the carpentry trade stood him in good stead, and we see the consummation of this type in the great ceilings that he put up in the Farnese Palace. He had precedents. His uncle Antonio had roofed the basilica of S. Maria Maggiore for the Borgia, Peruzzi had completed the saloon of the Palazzo Pietro Massimi, and Italy was rich in examples of these coffered ceilings glowing with blue and gold and heraldry. The basis of the design is simplicity itself. A rectangle 95 feet by 29 feet 6 inches is divided into rectangular coffers, eleven to the length, three to the width. The coffers are 7 feet square, and deep in section, a bold rosette filling the centre of each, with three exceptions. The carving of the enrichment is vigorous and has that variation within a general uniformity, which shows the happy mean between architectonic unity and vital craftsmanship. At the angles of the coffers the Farnese Lilies form effective drops, and bold anthemions have a twist to catch the light. There is far more gold than blue. The repetitive rhythm of the whole is emphasised by three splendid examples of the wood carver's art. To the east the Farnese *stemma*, surmounted by the Papal tiara and the keys, is a model of what architectural heraldry should be, glowing with gold and blue and white. In the centre is the Madonna and Child in the oak tree, with a ground of Venetian red, dark green leaves and golden acorns. The Virgin's dress is light buff, with a blue cloak powdered with gold, and her hair is dark. To the west is the Lion of Viterbo, rich gold on blue, holding his red and white pennon, and pierced by his green tree.

About the same time as the Viterbo ceiling, 1538-40, Antonio undertook some remodelling of the interior of the church of S. Spirito in Sassia, near the Porta S. Spirito, notably the ceiling of the organ gallery, and the pulpit.

S. SPIRITO IN  
SASSIA.



At Monte Sansavino he built the cloisters of S. Agostino [Uffizi No. 4030]. Vasari says that he built the Tabernacle of the Imagine di Ponte. Antonio had cured a number of cracks and bad

sance builders were so often guilty. For ten years, Lanciani tells us, San Gallo's masons looted and cut up priceless marbles of Roman monuments. He did not live to see it finished.



THE ORATORY, BIENTINA, LAKE OF BOLSENA

foundations in the Vatican as the result of other people's carelessness, but his great work there was the Sala Regia.

The Sala Regia which forms the vestibule to the Sistine Chapel, though originally it was intended for the reception of foreign ambassadors.

The great Sala Regia, begun in 1540, with the rich marble panelling and floor, and the ceiling modelled in stucco by Daniele da Volterra and Perino del Vaga, represents one of the most scandalous piece of vandalism of which these Renais-

About the same time Antonio completed the Chapel of the Holy Sacrament in the Vatican,

known as the Cappella Paolina adjoining the Sala Regia. A document of 1541 speaks of the Pope's wishes that Michelangelo should paint the

frescoes in this chapel, and he began them in 1542. They took seven years to paint, and represent the Conversion of Paul and the Martyrdom of S. Peter. He was 75 years old when he finished them, and they only show his decaying power as a painter.

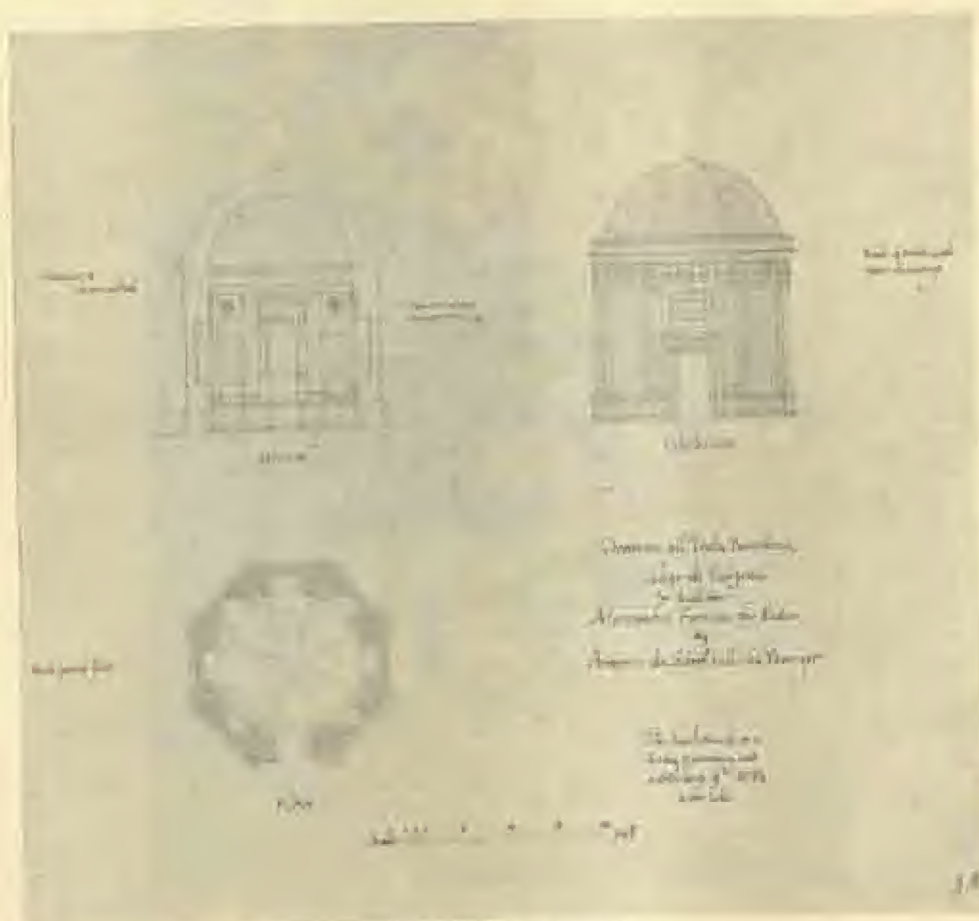


The Lake of Bolsena lies between Orvieto and Viterbo, and round it cluster the Papal stronghold of Monte Fiascone and the estates of the Farnese Family—Capodimonte where Antonio built a fortress, Gradoli, where he built a palace, and Castro, on the Olpeta, which he

ORATORY OF  
BISENTINA.

Cardinal Alessandro, before he became Pope, commissioned Antonio to design two chapels on the island. His drawings for these are in the Uffizi. "Oratorio all' Isola Bisentina No. 962."

One of them resembles the enchanting little oratory that Antonio placed, with such skill, on the apex of a rocky promontory, with a sheer fall of



THE ORATORY, BISENTINA  
(Measured and drawn by Jean Worthington)

fortified and laid out with a lavish hand. All these lie in fine sporting country, a favourite playground of Popes and Cardinals. The lake, some ten miles in diameter, is 480 feet deep, and contains two small islands, one of which, called Bisentina, was a favourite resort of the Farnesi. Here they came to picnic, bathe, and fish, for the lake was famed for its eels, even in Dante's day, and gourmets stewed them in Vernaccia wine. The

120 feet or more to the lake. Both rock and chapel are light in colour, and have an ethereal effect that is emphasised by the dark green foliage on the wooded hill behind, the whole being reflected in the deep blue-green water. The oratory, which is simplicity itself, is octagonal without, circular within. The internal diameter is 15 feet 2 inches, and the section is  $1\frac{1}{2}$  diameters high. It is effectively paved with 12 inch by 6 inch flat paving bricks, has an altar



facing the door, four niches, two square recesses, and shallow Doric Pilasters. The Farnese arms are carved in stone on either side of the altar, and the interior is whitewashed. Externally Doric pilasters are bent to the angles of the octagon, the entablature is enriched with triglyphs and guttae, and above the shallow attic rises the dome, covered with the rich jumbled texture of Roman tiles. Here we have all-round composition at its best, set with admirable skill on a site of surpassing beauty.

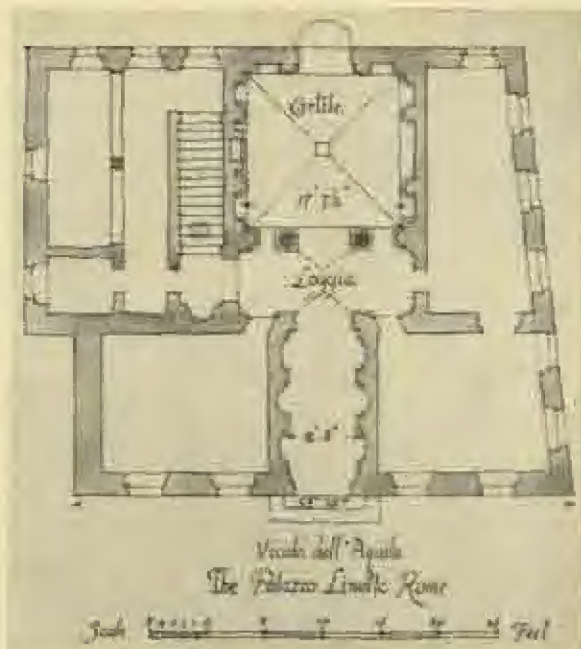
It is interesting to compare the scale of the interior with Bramante's two Roman oratories. That at S. Pietro in Montorio is 14 feet 11½ inches, and S. Giovanni in Oleo is 14 feet 6 inches across. On the lower land that juts out to the left is another chapel, also with a dome.

In the Uffizi there are drawings showing the complete plan of a church, "S. Maria di Monte Monte Fiascone" [No. 304]; details of a window [No. 302] and details of an Ionic capital drawn to a large scale [303].

#### PALACES.

The palazzo Palma in the Via delle Coppelle was, so far as we can tell, Antonio's first job. It was built for Messer Marchionne Baldassini in 1506 when the architect was only twenty-one years of age. Presumably Bramante allowed him time off to look after it. The plan is competent and convenient, with a cortile 34 feet square, and the staircase is good and lit from the little court, whilst the façade shows the same elements as all his normal palace fronts—the well-defined angle quoins, the simple astylar treatment, the string courses marking off the stories, a cornicione. The walling is of brick, 12 courses to 14 inches, the dressings are travertine. This building is disappointing in its proportions, and betrays the designer's immaturity, and that heaviness that is so often found in his work. The pedestals to the Doric doorway and courtyard arcade are too high, the columns and pilasters are too stumpy, the cornicione has an uncomfortable profile, and the ground floor is unhappily related to the floors above. The building lacks charm, and we feel, as we so often do, that it was a pity the "first job" was built. Yet we may feel sure that it played an important part in his development and that he profited by his mistakes. It is shown in Uffizi drawing No. 995:

The Palazzo Linotte, sometimes known as the Palazzo Regia or Piccola Farnesina, in the Vicolo dell' Aquila close by the Cancelleria, is perhaps the smallest, as the Palazzo Farnese is the greatest of Roman Renaissance town houses. It is one of Antonio's most successful buildings, and it repays analysis. The main façade, with its robust thick and thin rusticated ground floor, is one of the best proportioned of his elevations, the tiny cortile only 17 feet square gives one



PALAZZO LINOTTE, ROME

of the happiest versions of the so-called *motif Palladio* and the whole building shows what effect of well-ordered serenity and size may be obtained on a limited site by a skilful architect. It is a symphony in that space value which is one of the best characteristics of the period in which it was built. The court is enclosed only on the ground floor, and the architect has flooded the building with light by keeping one side open above. The details are characteristically Antonian. They will not hold their own with those of Peruzzi, to whom, for some unaccountable reason this building was for a long time wrongly attributed. The Doric capitals are heavy, the Corinthian capitals of the upper



loggia, with their uncarved foliage, are coarse and sit uncomfortably under the heavy cornice, that is proportioned to the whole building, not to the diminutive order that comes beneath it. The back elevation, which probably faced a narrow alley, is thoroughly bad. Yet, for all these faults, this is great architecture. Antonio plays with his classic stock-in-trade with a freedom to shock the Vitruvians. The entablature of the ground floor Doric order is successfully diminished and flattened, so that the arch line is not interrupted unduly. The topmost loggia is an enchanting suntrap. Tommaso le Roy, the French Prelate, who probably built the house between 1517 and 1525, must have spent pleasant hours in this lofty retreat. The building is an epitome of a Renaissance home, an ideal setting for the life of that enchanting period.

The Palazzo Costa, stands on the Via del Borgo Nuovo, close to the Vatican, so that Giacomo da Brescia, Leo's doctor, for whom it was built about 1520, was in close touch with his illustrious and unhealthy patient; for even before he was elected Pope Giovanni de' Medici was known to be suffering from an incurable ulcer. There used to be an inscription on the front—

LEONIS X PONT MAX  
LIBERALITATE JACOBUS  
BRIXIANUS CHIRURGUS  
AEDIFICAVIT.

It is interesting as giving an example of shop fronts of the day, and they in their turn are reminiscent of the shop fronts of ancient Rome. Although it has been attributed to Peruzzi in the past, the work bears the stamp of Antonio da San Gallo the Younger. The thick and thin rustication, alternating triangular and segmental pediments, the heaviness of proportion, the character of the mouldings, the use of discs, all point to his authorship. The *piano nobile* is well emphasised, and the attic admirably subordinated, whilst the angle of the building gives an effective perspective, and the arrangement of half pilasters besides the main ones is an ingenious corrective to wide spacing. The bays are unequally set out.

The so-called Palace of the Bishop of Cervia in the via de' Banchi Vecchi, near the Church of S.

PALACE OF THE  
BISHOP OF  
CERVIA.

Lucia is in reality a humble little shop building of two stories, with two shops on one side and another on the end. The openings are 10 feet square and have small windows with segmental heads, centrally placed over each. The strong angle quoins, the vigorous string course with its fret, the simple pedimented windows on the main floor proclaim San Gallo as the architect. The details and proportions are excellent, and it is a fresh, simple, straightforward piece of work. Vasari mentions it in his life of Antonio.

The Banco di S. Spirito at Rome, built by Antonio in 1538 for the Papal Mint, is an interesting building situated at the angle of two streets, and its main façade, designed to close a vista, has a gentle concave curve.

The composition is bold. The ground floor, with its fretted string course, has the thick and thin rustication, with the motif of the triumphal arch used above, and it was once enriched with the arms of the Farnese Pope. Antonio is here a little too self-conscious. The building lacks his virile simplicity, and the coarse uncarved capitals and general carelessness of detail do not show him at his best. It is interesting to compare the plan with the Porta S. Spirito.

The Palazzo Marsciano, or Tiberio Crispo, near S. Bernardino, at Orvieto, has a façade that is typical of Antonio's style, and is perhaps as pleasantly proportioned as any of his palace fronts.

The plan is different from the Roman use, but was a favourite one in the hill towns, particularly Montepulciano, the cortile being open on one side to sun and view. Nothing could have been pleasanter than these sunny terraced houses standing on the edges.

In the days of Clement VII, whilst Antonio was working on the Orvietan Pozzo, Raphael Pucci, a Florentine banker, commissioned him to plan a large palace between the years 1528-34. The original drawings remain in the Uffizi, and were not carried out, but a palace did eventually materialise in Orvieto to the order of Tiberio Crispo, a natural son of Pope Paul III, who was enrolled among the nobility of Orvieto in 1540, becoming a Canon of the Cathedral. Tiberio



became closely associated with Antonio, for before this palace was far advanced he was made the first constable of the citadel of Perugia, which Antonio built between 1540 and 1543, and he later became constable of the Castle of S. Angelo, where he worked with Antonio, as also on the Roman fortifications.

angle quoins, the horizontal string courses, are all typical. The bricks are 12 inches by 6 inches by 1½ inches, set four courses to 8 inches. The sketch plans for this palace are in the Uffizi, [No. 960].

The Palazzo Ceccerelli, at Colle di Val d'Elsa near Poggibonsi, is by Antonio, and he built a



PALAZZO TIBERIO CRISPO, ORVIETO

Probably Antonio had not very much to do with the execution of this palace. Raffaello da Montelupo worked on it between 1551 and 1556, and a contract of 26 July 1551 consigns 60 cartloads of Travertine to him. Scalza completed the building. But though others had a hand in it, the design is clearly Antonio's. The seven windowed front 86 feet 6 inches long, the rusticated portone, the

#### PALAZZO CECCERELLI.

palace at Gradoli for Cardinal Farnese, on the family estates. Vasari states that he also [built a palace in Rome for Cardinal Antonio di Monte; another for M. Bartolommeo Ferratino, the house of the Centelli next the tower of Nona, and a palace for Cardinal Arimini in Tolentino della Marca.



The Palazzo Sacchetti in the via Giulia, Rome, is of particular interest because the architect designed it for his own occupation.

PALAZZO  
SACCHETTI.

It is the *Casa Mia* of the Uffizi drawing [No. 991]. We have been told that Isabella was extravagant,

And it is also inscribed :—

DOMUS  
ANTONII  
SANGALLI  
ARCHITECTI  
MDXLIH.



PALAZZO SACCHETTI, ROME. Antonio's Own House

certainly this mansion in the then most fashionable street of Rome; with a lovely garden extending to the Tiber, and commanding views of the Janiculum, is an interesting commentary on the status of the successful architect of those days. As an acknowledgment of all that he owed to the Pope, Paul's Farnese arms are carved upon the building, and the inscription

TU MIHI QUODCUMQUE HOC RERUM EST

Nanni di Baccio Bigio, his pupil, enlarged and completed the building for Cardinal Giovanni Pucci of Montepulciano, who bought it from Isabella, but we can assume that the bulk of it is the work of Antonio and that he spent the last years of his life there. One hopes that the garden was something more than a builder's yard, for workmen round the house destroy all sense of comfort. Antonio lived and worked in the centre



of things. As he paced his garden in the evening, brooding over his professional wrangles, he was all too clearly reminded of the bones of contention. A quarter of a mile across the river the S. Spirito gate was being built. The Farnese palace, without its crowning cornice, was about the same distance to the south, whilst to the right, where the great dome now soars, he could see S. Peter's slowly rising above the houses. The plan, within the limits of the current convention, has points of originality, and it is pre-eminently practical. The side passages, 5 feet wide, that connect the two end loggias of the cortile on the ground floor, are unique, and a great improvement on the plan of houses which could not afford the full arcade on the four sides. The cortile is 44 feet by 40 feet, the bays are 15 feet. The generous staircase, 9 feet wide, has its flights well designed, and is lit on the half landing by the same ingenious little court that is found in both the Farnese Palace and the Palma. The arcade on the further side of the cortile is of one story only, having an open terrace above which is connected with the loggia of the *piano nobile* by open galleries over the corridors below. One of the most interesting features of the building is a vaulted passage, 14 feet 6 inches wide, at the back, that forms a covered stable yard, and ensures privacy for both house and garden. There are four stalls in the stable, so that Antonio, Isabella, Orazio, and Giulia could ride out together, and the coach house accommodates two carriages. The main front, designed for a narrow Cinquecento street, is 116 feet long and 76 feet high, and, like most of the architect's façades, is astylar and serenely symmetrical. The windows do not show that crowding round *portone* and angles that has been noted in his earlier works. The fine *cornicione* is one-twentieth of the brick front, which is marked off, horizontally, by string courses of travertine. The seven windows of the *piano nobile* are too small and lack the emphasis which should express the main rooms of the house. Their Vitruvian batter, like doors in the Palazzo Farnese, lacks the subtlety of Peruzzi's use. But the ground floor of the front is superb. There are few finer doorways of the period than the central *portone*, 8 feet 6 inches wide and 19 feet high, flanked by seats, and capped by a balcony with delicate bronze balusters, possibly later in date. The white marble and *porta santa* of the doorway may, in part, account for a delicacy of profile that is unusual with

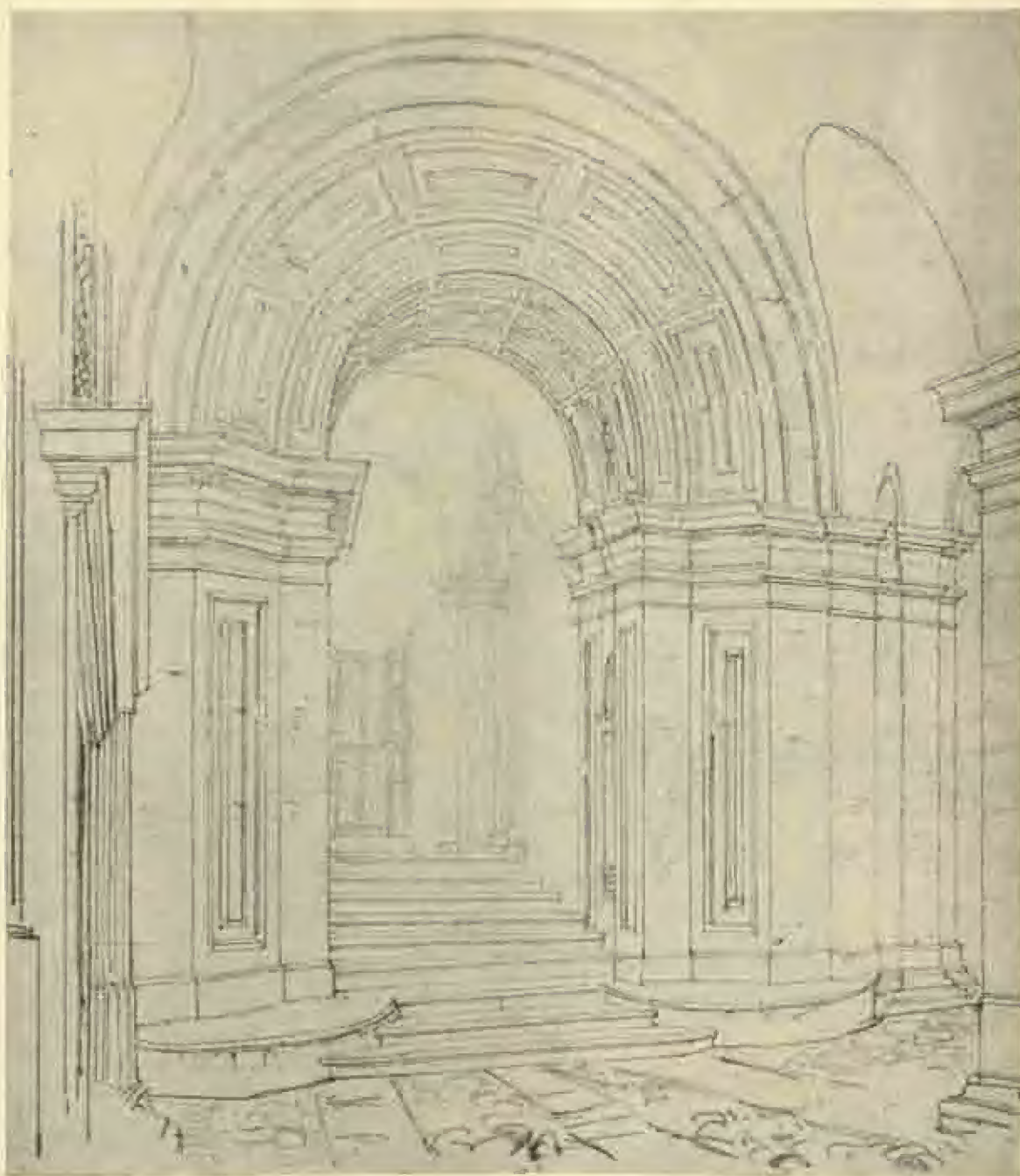
Antonio, but throughout the detail is refined. The great travertine consoles that support the eills of the ground floor windows are nearly 6 feet high and have a superb effect. The suppressed entablature of the cortile may be compared to that of the Palazzo Pietro Massimi.

The greatest of all the buildings of Antonio da San Gallo the Younger is undoubtedly the

Palazzo Farnese at Rome, and it is difficult to approach the study of it with a fresh and unprejudiced mind, for it has

suffered from being one of the most familiar buildings of architectural history. About the year 1514 Cardinal Farnese called in Antonio to rebuild the palace, on the Campo di Fiori, "where," as Vasari says, "he lived with his family." He obtained permission from the Apostolic Chamber to obtain material from the buildings that then surrounded San Lorenzo fuori le Mura, and the loot from this rich quarry included much of the sculpture that became famous in the Farnese collection. Here Antonio obtained the antique shafts that form the columns of the vestibule. Laurentiopolis, the Baths of Caracalla, and the Temple of the Sun, seem to have proved an inexhaustible supply, and it is hard to compute the ravages inflicted by the Renaissance builders on the monuments of antiquity. The architect's first schemes, of which the plans remain, were comparatively modest. As in the case of the Massimi brothers, so here, the Cardinal and his son, Pier Luigi, wished for separate establishments combined in one. When Paul became pope in 1534, the building was greatly enlarged, not so much, perhaps, for the Pope's own use as for the glorification of his son Pier Luigi, who took full advantage of his father's accession and became Gonfaloniere of the Church, and Duke of Castro and Nepi. The cortile was increased from three bays to five, the windows of the front were increased from 9 to 13, the vestibule, with its colonnades, took the place of the normal passage way, and property was bought at the back, giving access across the Via Giulia, to gardens extending to the river. Eventually a scheme was evolved for throwing a bridge across the Tiber and linking up with Peruzzi's Farnesina, but it never materialised. Our admiration for the Farnese Palace should be enhanced by the knowledge that the architect had to adapt and enlarge a scheme already well advanced.





THE FARNESE PALACE, ROME  
The Main Staircase  
From a drawing by Thomas Worthington, 1848



The Palazzo Farnese epitomises the worldly pomp and splendour of this great age of display. It might be said that it is the most Roman of Renaissance buildings. Yet, though the cortile has a close resemblance to the Theatre of Marcellus, a piece of plagiarism easy to explain when we bear in mind that the owner called himself Pontifex Maximus, and housed an incomparable collection of antiques, the building has an individuality that is all its own. It breathes the Classic spirit in its widest sense, a sense of order, and stately calm, and breadth, that place it above the realm of passing fashion. It transcends its type. The vast scale, the symmetry of the plan, the balance of solid and void, the axial vista through the shade of vestibule, the sunlit court, and the shade that leads to the light and colour of the garden, mark it out from its contemporaries. This apparent simplicity in a building so vast is only produced by a master mind. It is the embodiment of the "noble spaciousness," to borrow a phrase of Berenson's, which bespeaks the classic. You are convinced of this, or you are not. The triumphal carriage way with the sumptuous carving of the barrel vault, the width of the arcades, the generous stair that leads to the vast saloons on the *piano nobile*, entitle its author to be numbered among the immortal architects. It is the Latin house, the house of the Mediterranean civilisation, the house where life is lived as much in open loggia as in camera. The horses go down stairs to stable, the small army of bodyguard, lacqueys, and attendant pages are on the ground floor, the ceremonial rooms with their ceilings of gold and coloured wood are on the first, the more private rooms are on the second floor, and His Holiness could ride upstairs to bed.

The Farnese Palace towers majestically above the roofs of Rome. Its main front, on the Campo di Fiori, Florentine in type, is designed on a definite ratio of proportion, being roughly two squares, 200 feet by 100 feet, crowned by the great cornice which is one-eighteenth of the total height. The subdivisions are simple. Three stories, of equal height, are marked by string courses of vigorous design. The 13 windows of the *piano nobile* are again two squares, 4 feet 9 inches by 9 feet 6 inches, and the space between them equals the window height. They are crowded uncomfortably at the angles and round the *portone*. This central rusticated entrance is 28 feet

by 14 feet, and within is the carriage way, a *tour de force*, 19 feet from centre to centre of columns, the side walks half the width of the centre way, and its scale admirably related to the cortile. The short columns have an entablature that becomes the impost of the cortile, so the whole is bound together. The paving of this vestibule is noteworthy. The cortile forms an 88-foot cube, its bays are 16 feet centre to centre, the vaulted arcades, at either end, are 20 feet deep, those at the sides 15 feet. The staircase, now spoiled by a glazed screen, is nobly designed. It is 12 feet wide, and the treatment of the lower flights is masterly. The long flight of 27 steps is ingeniously lit by a little court, and the treads are 2 feet, the risers 4½ inches. Antonio has left a careful setting out detail of the stair, and one for the volute of the Ionic capitals. The great saloons on the front are 45 feet wide—too wide for vaults—and have sumptuous coffered ceilings of carved and coloured wood. The side rooms are 22 feet 6 inches wide, and the saloon at the back, designed by a later hand, has an elliptical vault, decorated by Annibale Caracci. Letarouilly goes into the question of these ceilings with thoroughness, and Antonio has left drawings for them, [Uffizi 734, 735]. They are inscribed as follows:—

PIER LUVIGI FARNESIO DUX DI CASTRO ET DI NEPI and are the natural development from the ceiling of S. Maria della Quercia, and show the freedom with which he tackled these elaborate designs for wood and colour. Besides the cornice, the central window, and the great heraldic shields of the front, Michelangelo added the top storey of the cortile. Vignola did internal work, and the loggia in the centre of the front towards the river was added by his pupil, Giacomo della Porta, in 1580. It is a vulgar and inharmonious addition. Unfortunately, the end arcades of the cortile on the first floor were filled in subsequently. The Farnese palace was over 50 years in building, yet though Antonio was only engaged on it for the first 32 years, the building is essentially his, and it is accounted his chef d'œuvre.

#### MILITARY ENGINEERING.

The science of military engineering was part of the regular practice of the Renaissance architect, and it exerted a healthy influence on an age which naturally tended to over-expression. Francesco di Giorgio the exquisite painter, Leonardo da



Vinci, the whole San Gallo brood, Baldassare Peruzzi, the painter-architect, Michelangelo Buonarroti the sculptor-architect, and Michele Sanmicheli of Verona the engineer-architect, were all experts in the art of fortification.

Military engineering was the modernist movement of those days. Artillery was for the first time causing a revolution in the art of war. What the motor car, aeroplane and submarine are to this generation, the culverine, the sacre and the bombarde were to the Italian of the *Cinquecento*. It took 56 oxen to drag the heaviest culverine, which weighed 13,000 lbs., and was 15 feet long, with a cannon ball of 120 lbs. weight.

These pentagonal bastions, these sheer battered walls, these embrasures, ramparts, and gates, afforded opportunities of composition in great planes and masses, that were as welcome to the artist as the church or the palace. Often the work showed the bare minimum of expression, but the real artist is not content with constructivism alone: he will super-add a certain distinction and flourish in his creation. Mere function is not enough. Personality and humanism must endow the bare bones of building with the fully developed beauty that comes of the architectonic sense.

These great ones were *ingenieri* in the best sense of the word. Their ingenuity and resource caused them to delight in laying water pipes, sinking wells, moving gigantic statues, and raising obelisks, as well as poising great domes high in the sky. It is not correct to call them slaves of the Vitruvian Rule and copyists of Ancient Rome.

Antonio da San Gallo the Younger followed in the family tradition, and threw himself with zest into engineering problems. In the days of Pope Leo X he fortified Civitavecchia, the seaport of Rome, his designs being selected in competition.

The most interesting work that he did for this great patron was perhaps more purely architectural than engineering, but we do not know the extent of the fortifications that he did at the same time. Leo brought Antonio, in the summer of 1516, to the towering fortress town of Montefiascone

to fit a *cortile*, in the new fashion, amongst the old mediæval halls and towers that formed the castle of the Popes. Here, indeed, was a site on which to build! The citadel is terraced 2,000 feet above the Tirrenian Sea that lies to the westward. To the

south are Viterbo, the Ciminian Forest, and Monte Venere. North-westward is Monte Amiata, and north-eastward the peaks of the Umbrian Apennines, with blue cloud shadows and gleaming hill towns. Below is the circular Lake of Bolsena, emerald green and blue, with the island Bisentina, and Antonio's Chapel. No wonder successive Popes came here in summer to enjoy the cool mountain air, the delicious wines, the produce of the countryside, the fresh fish from the lake, and the sense of infinite security. Leo chose it for the hunting, and Antonio was building him a hunting box and stronghold combined. Wild boar and stag, pheasant and hare afforded ample sport. The Papal pack of hounds was sent by Francois I of France as a present, and one of the keenest followers of the hunt was the Cardinal Alessandro Farnese.

It was not till three years later that Sanmicheli came to build his first and greatest church, and make Montefiascone a beacon to all the country round.

The gracious courtyard which Leo and Antonio schemed had the hall of the castle, now destroyed, down one side. The surrounding buildings have been largely razed, so that the whole presents the aspect of some ruin of antiquity, but the plan can be clearly traced. The open court is two squares in proportion, 41 feet by 79 feet 6 inches, which gives an unusual effect, and is most attractive. The loggia at one end, which was repeated at the other, is almost complete. It consists of a composite Doric arcade with three bays. The loggia is 16 feet 8 inches deep, and though the vault has gone, it is spacious and noble in its decay. In the centre of the long sides are further loggias with two bays each. In the spandrels of the arches are the architect's favourite discs, and on the pedestals of the pilasters is found inscribed:

Leo	Anno
Pont	DNI
Max	MDXVI

It must be supposed that this Papal eerie was once complete, and enjoyed by Leo, Clement and Paul, and that pleasant banquets took place in these once lovely loggias. But it was a place of great strategic importance, as Cesare Borgia had realised when he brought Antonio da San Gallo the Elder to make the mediæval stronghold more secure. Someone destroyed it, but even in its desolation it stirs the historic sense and charms by its beauty.



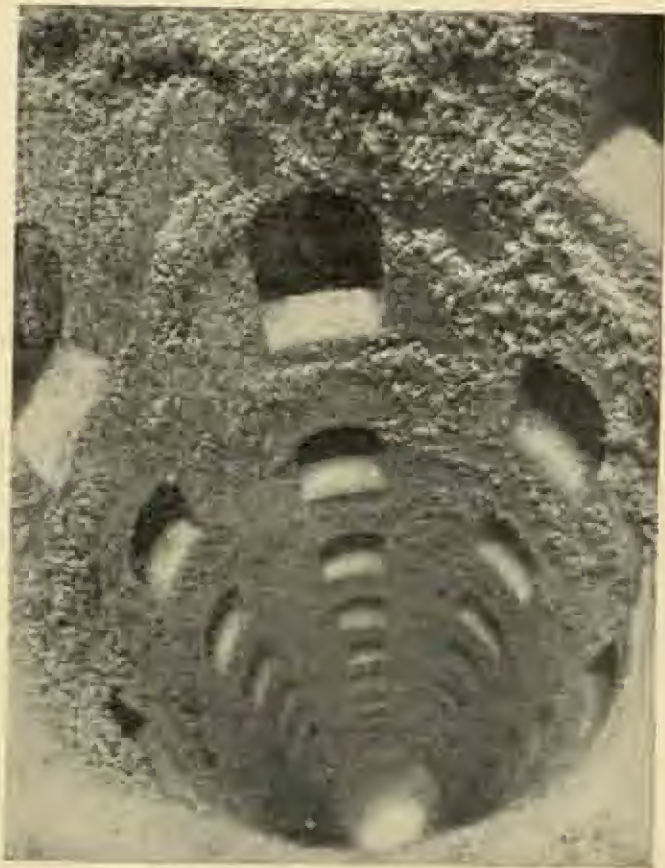
Antonio was closely associated with the ill-starred Medici Pope, Clement VII, who saw Rome devastated and Italy crushed under the heel of Spain, who refused Henry VIII his divorce, lost England for the Papacy, and failed to master the rise of Protestantism in northern Europe.

When Clement decided to fortify Parma and Piacenza, he eventually put Antonio and Michele Sanmicheli of Verona in charge of this important work, with Giuliano Leno, Piero Francesco of Viterbo, and Antonio

Labacco as collaborators. Their time would have been better spent at Rome, for if it had been, the city might never have endured the events of 1527. The Pope had run down the corridor, which Antonio had supervised for Bramante, from the Vatican to the Castle of S. Angelo, whence, with the Cardinal Farnese, he witnessed the sack of Rome, and on 6 December 1527 he fled over the Etrurian plain and the pass of Monte Cimino, through Viterbo, and across the uplands to Orvieto, set on her impregnable acropolis. After him came the whole rout of his court, crowding the rocky fastness to overflowing, and placing too great a strain upon its water supply. The Pope, remembering that Antonio had served him well at Parma and Piacenza, called him in to deal with the water panic, and bade him sink the great Pozzo, or well, that remains to this day as one of the great triumphs of Renaissance engineering.

The Pozzo of S. Patrizio was so called after the Grotto of S. Patrick in Ireland. On an islet in Lough Derg, in Donegal, was an ancient subterranean structure known as the Purgatory of S. Patrick. It was a favourite resort of pilgrims, for it was believed to be an entrance to Purgatory guarded by the Apostle of Ireland, and the cave was entered through a disused well. Sir James Ware, in his *Insulae Purgatorii S. Patricii Descriptio*, 1654, shows the "Caverna Purgatorii." "As to the cave itself," says Ware, "it was built of freestone and covered with broad flags and green turf laid over them . . . It is in length between the walls sixteen feet and a half, and in breadth two and an inch."

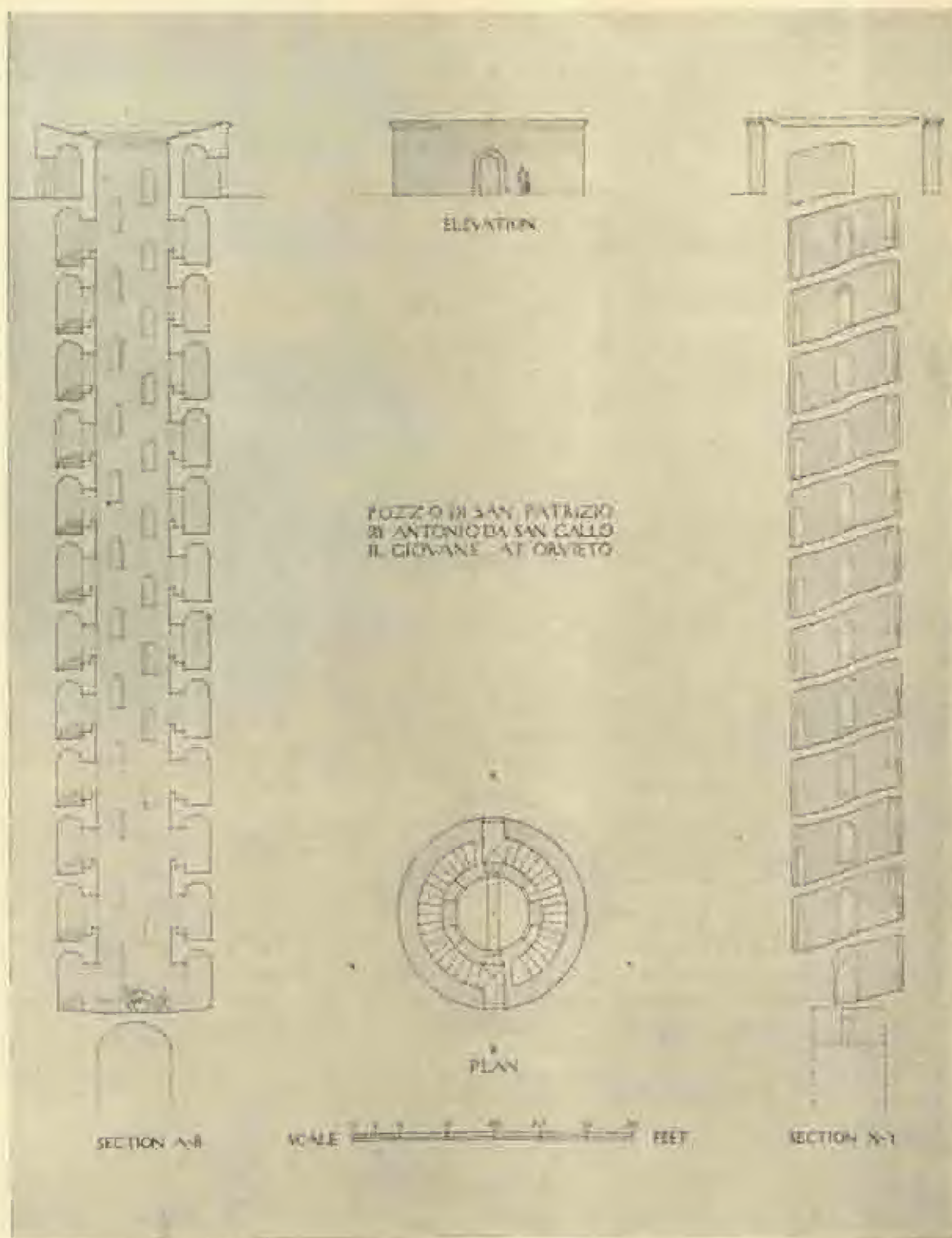
The Orvietan well was sunk in the precincts of the Citadel near the edge of the precipice. Antonio had to go down 180 feet before he struck water, and as it was ten years before the great undertaking was



POZZO DI S. PATRIZIO, ORVIETO

completed, the Papal Court decided to go elsewhere in the interval! It is carved out of tufa except for the portion where it passes through strata of clay, where it is built of brick. In the centre there is a light well, 15 feet in diameter, then a rock wall 3 feet thick, and round the central shaft wind two mule stairs 4 feet 10 inches wide. These spiral stairs are arranged one above the other in such a way that the beasts descending for water by the one come back by the other without turning at the bottom, but pass straight across the little bridge at water level and up the stairs on the other side. Arched openings, cut in the intervening wall, light the staircases from the central shaft, and as one looks up the well from below, its walls clothed with maidenhair fern on which the drops of moisture glisten in the light, the effect is exquisitely beautiful. No wonder it was considered a wonder of the world, and that Pope Paul, who saw it





POZZO DI SAN PATRIZIO, ORVIETO  
(Measured and drawn by Joan Worthington)



finished, caused Benvenuto Cellini to make a medal inscribed "What nature had denied as a gift, man's industry provided."

But so useful a man as Antonio could not spend his whole time on the Orvietan Well, important though that work was. There was a general sense of fear and insecurity abroad, and he was sent to fortify Florence and Ancona by the panic-stricken Pope.

Clement had reduced Florence to subjection, and his "nephew" Alessandro de' Medici, a reputed son of Lorenzo by a Mulatto woman, was Duke. Antonio was called upon to build at fever heat the Fortezza San Giovanni Battista, now known as the Fortezza da Basso.

This citadel lies on the banks of the Mugnone, between the Prato and Sangallo gates, and served the double purpose of guarding Florence on the northern side from attack without, and of dominating the citizens within. It is said that Michelangelo, at the risk of his life, refused to design it, and here perhaps was one of the origins of the later quarrel with Antonio da San Gallo the younger. The latter had none of Michelangelo's qualms of principle and conscience. Filippo Strozzi was reputed to have urged Alessandro to build it, but after an unsuccessful attempt to overthrow Duke Cosimo a few years later, Filippo, a victim of cruel tortures in the dungeons of this dreadful instrument of tyranny, was found dead in his cell in 1538.

It is rigidly symmetrical, and its dimensions are roughly 1,220 feet by 1,000 feet, with bastions at each of the four corners, and others in the centre of the long sides. The masses are good but the lozenges and discs, embossed alternately on the stones of the masonry, make it a little fussy, and subsequent additions have marred its original simplicity. Piero Francesco da Viterbo, who had worked with Antonio and Sanmicheli at Parma and Piacenza, and Alessandro Vitelli, were associated with the work.

[Drawings 756, 757, 760 in the Uffizi show studies for the Rocca of Florence.]

In 1532 Gonzaga made over the important harbour of Ancona on the Adriatic to Pope Clement, who installed a garrison and ordered Antonio to strengthen the fortifications. The great crescent bay of this lovely harbour lies between Monte

Guasco, which is crowned by the Church of San Ciriaco, and Monte Astagno where the citadel stands.

Drawing 1507 in the Uffizi shows the plan for the Rocca of Ancona, and drawings 1510, 1520, and 1522, a city wall and gateway with a steep batter.

Whilst engaged at Ancona Antonio used to ride over the fifteen miles to Loreto to repair the church, and work on the Palazzo Apostolico.

When Clement died, Pope Paul III made an even fuller use of Antonio to strengthen the defences of the States of the Church, and his practice rivalled that of Sanmicheli for the Venetian Republic, although it came within a much closer compass.

The picturesque Castello of Nepi, which had been built on the site of a mediæval castle by his uncle, Antonio da San Gallo the elder, for Pope Alexander VI, was restored and enlarged, the defences of the city as a whole were organised, streets were laid out, and houses and palaces designed.

Nepi is only twenty-five miles from Rome, a comfortable ride for client and architect, and with Civitacastellana and Caprarola, forms a circle of Papal strongholds with a radius of five miles, in the country that lies between Soracte and Monte Ciminio.

Civitacastellana, enclosed by deep ravines, had an important citadel which his Uncle Antonio had also built for the Borgias. Julius II and Leo X had enlarged it, and as Antonio the Younger has two drawings for it in the Uffizi [975, 977], we can assume that he was responsible for some of the later work here. It has a fine octagonal tower.

The Uffizi also shows drawings for a fortress at Faenza [No. 971], which Julius II annexed for the States of the Church in 1509, and for a Rocca at Fabriano [No. 970].

Vignola is generally given all the credit for the superb pentagonal castle which was begun whilst Paul III was still alive, for the Cardinal Alessandro the Younger, eldest son of Pier Luigi Farnese, and favourite grandson of the aged Pope.

Burckhart says that it is "perhaps the highest example of restrained majesty which secular architecture has achieved." It is splendidly perched



on a steep hillside above the mountainous village of Caprarola, from the straight axial street of which it is approached by a magnificent series of ramps, terraces and steps; whilst its famous gardens and garden houses mount still farther up the wooded hill behind. Each side of the pentagon is 130 feet; the great circular cortile is 65 feet across; the most beautiful of Renaissance circular staircases, recalling Bramante's in the Vatican, is 9 feet wide with a well of 11 feet.

To Vignola the credit of execution is certainly due, but the idea was undoubtedly Peruzzi's, for in the Uffizi there is a carefully drawn plan showing the pentagon identical externally, though with a pentagonal cortile in place of Vignola's circular one.

What share Antonio had in this famous building it is hard to say, but Vasari says that "he designed also the Fortress of Caprarola." We may feel quite sure that he was responsible for the very intricate foundation work, if not for a good deal more.

CASTRO. Castro, on the river Olpeta, twenty-two miles from Viterbo, near the lake of Bolsena, a district

where the Farnese estates lay, sprang into prominence at the Pope's commands when he made his son, Pier Luigi Farnese, Duke of Castro and Nepi in 1537. Like the Pienza of Aeneas Silvius, it became a model town of the High Renaissance, as the former was of the Earlier. Antonio da San Gallo the Younger was its architect. Vasari tells us that he designed the fortress there, the palace on the Piazza, the Mint, and that "Antonio did yet other designs for palaces and other buildings there for various natives and foreigners, who incurred incredible expenses without reserve, all these structures being ornate and most convenient. No doubt many acted thus to please the Pope, hoping to obtain favours, a very praiseworthy thing when it produces such results for the universal convenience and delight." This passage is substantiated by an unusually large number of San Gallo drawings in the Uffizi for the city walls 753; for the fortress 775-777 and 782-785; for a small house, probably the so-called Palace for the Duke of Castro, 744; plan of a house for Agnolo di Castro 745-746; Le Zecca or Mint 749; a portico with a row of shops and Municipal rooms 297-299; a plan of a church with three naves, for the Convent of S. Francesco,

736-740. Antonio sent his cousin, Aristotile, to supervise the work.

Castro would be a fine subject of study for a keen student, for it would be an almost unique example of a walled town of the High Renaissance, but the student would search in vain, for this important contribution of Antonio's is no more. This once thriving town was razed to the ground at the order of Pope Innocent X in 1648 to punish the inhabitants for killing their bishop. It was the culmination of the so-called War of Castro, a story that Ranke records in his history of the Popes of Rome.

He also built the Fortress of CAPO DI MONTI. Capo di Monti on the lake of Bolsena, and he placed Ascoli in a state of defence for Paul III with a speed that amazed the inhabitants.

THE ROCCA OF PERUGIA. The greatest piece of military engineering that Antonio built was the gigantic Rocca Paolina of Perugia.

For a vivid picture of Italian Renaissance history, the *Chronicles of Perugia*, by Matarazzo, can hardly be surpassed, and to read this book is to know the bloodthirsty Baglioni family that fought each other till only Ridolfo was left. Ridolfo burned the Palazzo Pubblico and assassinated the Papal Legate, the last outrage of many that these ruffians inflicted upon Rome. The Farnese acted swiftly. Ridolfo was driven out and Paul III arrived in person at Perugia. The people of the city, weary of the despotism of the nobles, welcomed the Pope with triumph and delight on the last day of August 1535, in the second year of his reign. For three years he ruled in apparent peace, till in 1538 he decreed that the price of salt should be raised by one half. The Perugians revolted. In March, 1539, the Ban of Excommunication was laid upon them. The murmurings became more audible, and the people elected twenty-five defenders of justice in the city of Perugia to resist the Pope's authority. Quickly and irrevocably retribution followed. The dreaded Pier Luigi Farnese, with 10,000 Italians and 3,000 Spaniards, advanced upon the city. Ridolfo Baglioni put up a lame fight, and on June 3 1540 concluded a miserable peace. The unhappy envoys who went to crave pardon of the Pope obtained it at the price of liberty, and, as the instrument of his rule and the symbol of his power, Paul III com-



missioned Antonio to raise the greatest of Renaissance fortresses on the dominating site where the palaces of the Baglioni had stood; "ad coercendum Perusinorum audaciam." Perugia the indomitable was tamed at last, and for three hundred years the Papal citadel laid its heavy yoke upon the town.

Ruthlessly the site was cleared. Antonio razed the strongholds of the Baglioni, ten churches and four hundred houses. He preserved, however, the Church of S. Ercolano, and left the Porta Marzia,

until she shook herself free from Papal rule in 1848. The work of destruction began. But Antonio had built well. Pickaxe and crowbar would not suffice. Blasting had to be resorted to, and in the explosions some men were killed. "Thus did the Farnese Pope once more avenge himself on us, even after a period of three hundred and eight years."

The first Constable was that Tiberio Crispo, son of Pope Paul, for whom Antonio had designed



FORTIFICATIONS

one of the Etruscan gates, built into the west wall of the Rocca.

The architect had been set a great task, and he completed it in three years. Labour and money were not lacking, and for man power he had the Perugians themselves, for prisoners always built the fortresses of those days, and in this case every citizen was a prisoner. The demolished buildings made an ample quarry. By a strange irony it was the citizens who destroyed the hateful edifice.

This most remarkable of all Perugian buildings dominated the city for over three hundred years,

the charming palace at Orvieto, and later, we shall see, they worked together in Rome at the Castle of S. Angelo.

It is not easy to reconstruct in the mind's eye the Farnese citadel that was Antonio's greatest triumph as a military engineer; but we may be sure it had noble suites of rooms, like those of the Castle of S. Angelo. The upper Rocca, by far the largest part, covered the level space now occupied by the Prefettura, the Hotel Brufani, and the Piazza Emanuele. The lower, fan shaped fort stood on the level ground now occupied by the



Piazza d'Armi and the Municipal Buildings. The two parts were connected by a kind of buttress rampart, that ran from the upper to the lower fort in a raking line.

This is how Adolphus Trollope, one of the last to see the building, described it:—

"Few buildings have been laden with a heavier amount of long-accumulated popular hatred than this; and few have more richly merited it. The Perugians were for many ages—nay, it may pretty well be said that they never ceased to be—a hard nut for the grinding teeth of papal tyranny to crack, and this huge Bastille was, at the time of its erection, a symbol of the final destruction of liberty in Perugia.

"When I had last been in Perugia the entire building was open to the curiosity and free examination of the public. There was no crowd when I wandered over the labyrinths of its stairs and passages, guard-rooms, barracks, casemates, and prisons of every sort and size. I had the foul place then all to myself, with the exception of a few workmen, who were beginning to take the roof off one of the upper buildings; for the public of Perugia had already satiated their curiosity. I saw the large dungeons, accessible only by a circular opening in the pavement of the less dreadful dungeons above them; I saw the fearful cells, constructed in the thickness of the colossal masonry, in such devilish sort, that the wretches who had dared to question the deeds of Christ's Vicar on earth, once introduced into the cavity through apertures barely sufficient to admit a crawling figure, could neither stand nor sit in them. I paced the lofty battlements, which commanded such a panoramic view as can hardly be matched, over the beautiful country and the many cities within its circuit, all priest-trampled and poisoned; and I marked the narrow light-holes in some of the less dreadful prisons, through which a miserable, tantalising strip of far distant sunlit horizon was dimly visible to the immured victim, who knew, too well, that he should never, never return to the light of day."

The Rocca Paolina, if we could but see it, would show us that its architect was one of the efficiency school, an expressionist, and the solver of a very complex problem. Here is a master of the awkward site, an expert in sound building and *Quincento* gunnery. He is, moreover, the man of action, with a plan prepared red hot, and no time for the deliberate process of elimination towards perfection. He is the full-blooded humanist entering with gruesome zest into this dreadful instrument of his relentless master. Here were *carceri* indeed, no imaginary nightmare of an unhinged brain. We must picture it in the days of

its dreadful splendour, the Farnese lilies floating from its topmost tower against the blue sky of an Umbrian summer, as the Constable, escorted by a troop of gaily caparisoned Renaissance cavalry, clatters through the gate. Trumpeters sound a fanfare, hanged men dangle from above like those in Pisanello's drawing, and in the terrible oubliettes lie the condemned Perugians who dared to rebel against their Pope.

When Tiberio Crispo became  
CASTLE OF S. ANGELO. Constable of the Castle of S. Angelo in 1542 he made great

improvements there for the reception of the Pope, his father. Alexander VI was the first Renaissance Pontiff who set about making the great tomb, which Hadrian had built for himself in A.D. 136, into an impregnable fortress connected with the Vatican. Antonio da San Gallo the Elder had been the Borgias architect.

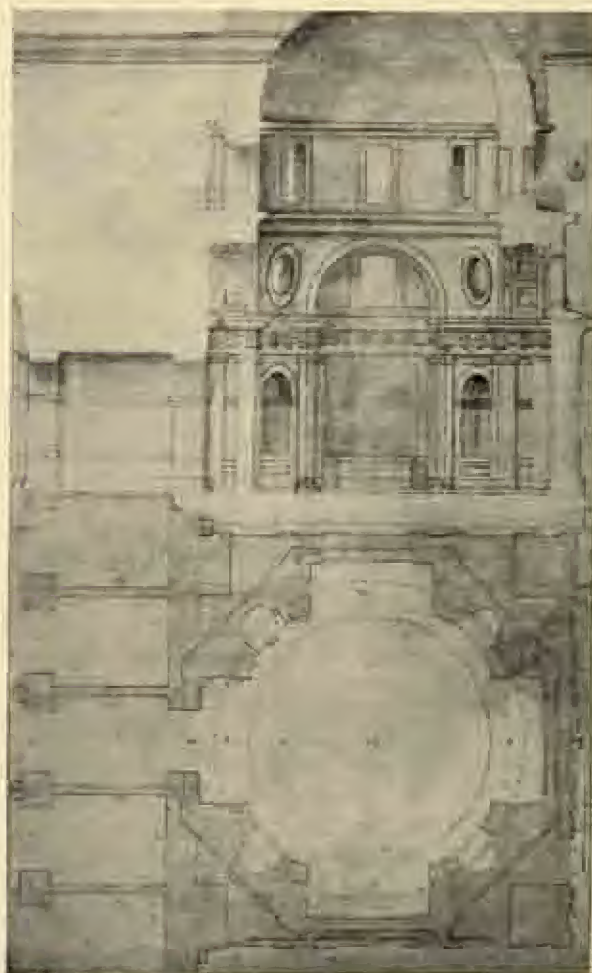
Julius II caused Giuliano da San Gallo to make the charming loggia that overlooks the Ponte Sant'Angelo. Here it was that Clement VII, who had contributed his share to its decoration, fled with his Cardinals, Alessandro Farnese among them, at the time of the sack of Rome in 1527, and now in the reign of Paul III, Antonio the Younger, at the close of his career, added to the superb suite of Papal apartments which must have presented a truly wonderful appearance when fitted out with all the rich accessories of Renaissance life, and which have recently been refurnished. The Sala Paolina, or Salone del Consiglio, has frescoes by Perino del Vaga, showing the history of Alexander the Great, and a rich stucco ceiling. The private apartment of Paul III, called the Camera del Perseo, has the story of Perseus, also by Perino. The same painter decorated the Sala di Amore e Psiche which has a superbly carved and gilded ceiling. The Sala dell'Apollo is a noble chamber massively vaulted and delicately decorated by the School of Raphael. The masculine fireplace inscribed PAULUS III PONT MAX is presumably Antonio's, and the whole room bears the stamp of his robust genius.

What Perino did for the walls, Giovanni da Udine did for the ceilings in stucco or carved wood.

Simone Mosca, who had served Tiberio and who built him a house at Bolsena, was brought to assist Antonio with the Papal suite. He helped in particular with the new loggia facing the Prati which Antonio built on the side opposite to the



one in which his uncle's loggia stood. Mosca had helped Antonio on the Pozzo and the Perugian Citadel, and was his chief carver.



A DRAWING BY ANTONIO DA SAN GALLO THE YOUNGER

#### HIS CHARACTER.

In attempting to sum up the character of a Renaissance humanist, one must take it for granted that it is a mistake to confuse art with morality, for the critical judgment is primarily concerned with the work, rather than the man. The morality of the Victorian era was not distinguished by its contribution to architecture or to art in daily life, whereas Sigismondo Malatesta, Cesare Borgia and Pier Luigi Farnese patronised Alberti, Leonardo and Antonio.

For all that, it is often hard to reconcile the creations of the great artists of the world with characters that are often mean and despicable, judged on the plane of ordinary conduct. Antonio was no exception to this rule. He was manifestly an unpleasant fellow, devoid of humour, an unconscionable snob, of an acid disposition, cantankerous, self-important, egotistical, and no gentleman. It is to be feared that he represents a type only too common in his day. Michelangelo said that he worked for gain and prolonged the work on St. Peter's to this end. A pagan, a cynic, consumed by an overmastering ambition relentlessly pursued, he shared with his patrons a passion for glory that was one of the characteristics of the age. We glean his character from small incidents. Benvenuto Cellini tells us that Il Rosso "had spoken ill of Signor Antonio San Gallo, an excellent architect, in consequence of which the latter soon had him turned out of an employment which he had procured for him from Signor Agnolo da Cesi, and from that time forward became so much his enemy that he would have starved if I had not often lent him ten crowns for his support."

He took his cousin, Aristotile, into his office, and sent him to supervise the walls of Castro for Pope Paul III. Antonio sent him out of the way because his provincial habits and familiarity grated on his nerves and offended his dignity. "Antonio," says Vasari, in his life of Bastiano, "disliked this, accustomed as he was to being treated with deference by cardinals and other great men." When Aristotile begged to be allowed to return to Rome, this was only agreed to on the stipulation "that he should treat him with more respect, especially in the presence of the great."

Perhaps the most unpleasant episode that has come down to us is his attitude towards his own brother, Giovanni Battista da San Gallo, called il Gobbo, for he was a hunchback. The man of fashion resented the poor deformed fellow, and, though he sent him to supervise his country jobs, and made the fullest use of him as office manager, he gave him no opportunity to express himself. He was one of Nature's "ghosts." Il Gobbo was a consummate draughtsman. His plan of the Villa Madama, drawn when he was an assistant in Raphael's office, is excellent. But let us read the story in Vasari, who knew them both :—

"Antonio left a brother, Battista Gobbo, an ingenious man, who devoted all his time to his



brother's buildings, though Antonio did not treat him very well. He survived Antonio many years, and at his death left all his property to the Misericordia of the Florentines at Rome, on conditions that they should print his book of observations upon Vitruvius which has never appeared. It is supposed to have been a good work, because he thoroughly understood art and possessed judgment and intelligence."

It is a miserable story, especially when recollecting the happy brotherly relationship that existed between his more generous-minded uncles, Giuliano and Antonio the elder.

Anyhow, Antonio possessed force, he was vital, he had a personality strong enough to be the chosen favourite of one of the greatest popes, and to be counted the rival and enemy of Michelangelo, perhaps the greatest giant of all these supermen. His selfishness and egoism, his lack of the higher qualities of sensitiveness, however, militated against him as an artist, in that he failed to co-operate with his brothers of the other arts. He stands for worldly success, not spiritual power, and in this lies his strength as a builder and his weakness as an artist.

There seems to be no portrait of Antonio, which is very unfortunate when one remembers those which Piero di Cosimo painted of his uncle, Giuliano, and his grandfather, Francesco Giamberti, or that wonderful drawing by Leonardo that is said to be of himself. He was not capable of painting a self-portrait such as that vivid one of Peruzzi's, but if he could only have sat to Titian, when he painted his master, Paul III, in Rome, his personality would indeed become real to us.

Michelangelo was a very different person, and the two suffered from a complete incompatibility of temperament, yet Michelangelo, for all his high moral tone, intrinsic honesty, and self criticism, was exasperating to a degree, and rode roughshod over the feelings of others.

But humanity is infinite in its variety, and it is comforting to feel that such men as the good Duke Federigo of Montefeltro balance up the Cesare Borgia, that Baldassare Peruzzi was as other-worldly as Antonio was worldly, that he was gentle and beloved and quarrelled with none, that he was out for art, not for himself. Nor was Peruzzi unique. Sanmicheli combined success and wealth with generosity, and never wearied of giving credit and profit to his hard-working partner nephews, and proved that tact and good behaviour were not

necessarily a weakness. Antonio was of the other type.

But despite their touchiness and human frailty, their love of praise, their dreadful jealousies, their infinite perversity, these were big men and did things with gusto. What in lesser mortals becomes decadence is forgiven in the superman, provided his art is great. Their irritating habits, their assertiveness, their exaggerated temperaments die, but the vitality remains in their enduring work. They had forcefulness to get things done with a full-blooded zest, and threw themselves into the life of their times, and expressed it in their buildings. Living art moves on, but it leaves its permanent mark.

#### HIS CHARACTERISTICS.

Antonio has earned a place in the hierarchy of architects, and in trying to place him it is perhaps fair to say that he was no heaven-sent genius. Amongst the numerous drawings that remain to us from his dexterous hand, we find, other than architectural studies, only one for a pair of dividers. This is a significant fact when we remember the many-sided qualities revealed in the notebooks of Peruzzi and Leonardo.

Antonio was not a leader of new ideas, but, rather, a sound exponent of acknowledged principles, following in the footsteps of Bramante, catching a good deal from Raphael's genial spirit, and a good deal more from the inspiring genius of Peruzzi. He could not paint, he could not carve, like so many of his brilliant *confrères*, who seemed to make all art one. The study of him should be encouraging to the mediocre and specialising modern, with his passion for efficiency, his hatred of humbug. It is not always the greatest minds that get most things done.

His early work was poor, his design for S. Peter's retrograde, but, with these exceptions, he consistently grew. His simple "Georgian" Palaces, so admirably planned, so free from plastered orders, have set a type.

But Antonio had many new problems to solve, almost as revolutionary, when compared with the Middle Ages, as those of our post-war world. His military engineering works, if they had remained intact, would have clearly proved this. He was in no sense an amateur, but was a master of construction, of the use of materials, of composition in great planes and masses, and in the use of awkward sites. As a planner he was superb, he



insisted on good craftsmanship in all the trades, he excelled as an organiser, but he had not the artistic subtlety to gather round him painters and sculptors of the highest order. He was a man of the world "with no nonsense about him." Sometimes it seems a pity he hadn't some. Still, his essential qualities give the lie to those enemies of the "foul torrent of the Renaissance" who accuse it of sham and pedantry, saying that its façades are inorganic scene-painting, and its materials and workmanship inferior.

In following his life we see mirrored the problems of our own day, not only the eternal principles of design, but those human problems that seem inseparable from the production of great buildings.

Half the clichés of modernism were as much to the front then as now. The questions between

the "advanced" and the "academic" schools, between restraint and licence, over-individualism and excessive rule-worship were disputed over the drawing board, and in the wine shop, with just as much intensity as in these later times.

The problems of relationship with the client, the touchiness of artists and the danger of infringing the delicate laws of professional etiquette, the almost equal, if less articulate, sensitiveness of assistants, specialists, builders and workmen, the cares of a large office, competitions lost and won, contract disputes, and unkind criticisms, show that designing is only a part of the architect's arduous life. We can glean wisdom and sanity in realising that our own problems are as old as the hills, that talent without personality is of little avail in our complex calling, and that four hundred years are as nothing in eternity.

## Discussion

THE PRESIDENT, SIR BANISTER FLETCHER, F.S.A., IN THE CHAIR.

The RT. HON. Sir RENNELL RODD, G.C.B., G.C.M.G., G.C.V.O., in proposing the vote of thanks to Mr. Worthington for his Paper, said: I am very proud to be honoured with the task of proposing a vote of thanks for the extremely interesting lecture which we have heard to-night; and although it might have been entrusted to someone with much greater technical knowledge, at any rate I have this claim to speak on the subject, that when I am in Rome—which I am for a great part of the year—I live surrounded by Antonio da San Gallo, for on one side of my house is the Farnese Palace, and on the other side the Sacchetti Palace, which he built for himself. Behind the house is Santa Maria di Monserato, which he also designed, though you would not recognise his handiwork now under the modern decorations, some 200 yards away is that charming Palazzo Linotte, of which we have heard so much to-night, and I could mention half-a-dozen other buildings in the neighbourhood. I only say this to show that there is some reason why I have been chosen for this honour. And I feel a special personal gratitude to Mr. Worthington for his lecture to-night, because, although more or less familiar with San Gallo, I have always found it difficult to individualise him amongst the mass of other famous architects with whom he worked and co-operated in Rome.

There is a very interesting point which the lecturer raised about the quarrel with Michelangelo; I have always felt there is something rather unexplained in all that history. With regard to the Farnese

Palace, as far as I can recollect, the ground was cleared in 1514, but the work was not proceeded with for a long time. There were foundations to make, and they cut across the old barracks of the Red Company of Charioteers, which gave a good deal of trouble. Very little progress had been made up to the date when Alessandro Farnese became Pope Paul III. Before the Palace was finished nearly a hundred years had passed. The greater part was completed after the younger Alessandro Farnese, the grandson of Paul III, had come into possession. About that quarrel I have always understood that, for some reason or other, soon after Paul III became Pope, there was some dissatisfaction with the work of Antonio da San Gallo, and not only Michelangelo, but also other distinguished architects were called in to compete in designing the cornice. Though Michelangelo's drawing was preferred by the Pope, he did not actually give him the commission. And I do not think the cornice was carried out by Michelangelo until after the young Cardinal Alessandro Farnese, the grandson, had come into occupation of the palace. According to one account, it was not put on until after the death of Antonio da San Gallo. In connection with the whole matter there is, I think, a good deal of history yet to be cleared up.

Professor W. G. NEWTON [F.], in seconding the vote of thanks, said: I think that this evening, Mr. Worthington has, as he always does, opened the door for us into an extraordinarily vital time. He has now completed his studies of the family of San Gallo.



Between them they covered a most remarkable hundred years, namely, from 1445 to 1546: old Giuliano, old Antonio and young Antonio. With father and sons and grandsons, they are a remarkable instance of an architectural family, such as we have in this country in the Scotts, the Waterhouses and the Worthingtons themselves.

I would like, before concluding, just to touch on a point which Mr. Worthington dealt with, and which he further emphasised in his earlier paper, that on the two uncles, Giuliano and Antonio. That is, that it is not only important, but of extreme interest for students if, when going abroad, instead of just in a vague way wandering about with their mouths open and visiting indiscriminately various towns in Italy, they would rather study the work of one person or one place, so that, whatever they do, they have a clue which makes their studies and their observations of much more value to them afterwards. Those who are concerned with students and who direct architectural schools should, I think, get together and lay down suggestive lines for students who are going abroad, so that when they visit these countries they can do so with more profit to themselves; and when they come back and pool it, it is of more profit to others.

The Rt. REV. BISHOP GORE, D.D.: I think no one has ever been called on with more suddenness. I have no kind of right to speak on the subject of this vote of thanks, except to thoroughly prejudiced minds, owing to my long friendship with the lecturer. Speaking, therefore, out of a long experience of his friendship, I can say that to travel with him is a great illumination to a thoroughly uninstructed person. I remember very well, when I first made acquaintance with him, he was occupied with Peruzzi's palace; and the impression of his enthusiasm on a person profoundly ignorant at that moment was so great that it has persisted to this day; and I shall go, on Easter Monday, to pursue my architectural studies on lines suggested by him, in Istria and Dalmatia. I could wish nothing better than that those who are entering the science and the profession of architecture should have somebody at once so enthusiastic, so sympathetic and so scientific to help them to the true point of view.

Professor BERESFORD PITE [F]: The great event of Antonio da San Gallo's practice and life is St. Peter's, itself the greatest building on earth, the largest undertaking of architecture. Antonio came into the middle of the problem. The rebuilding of St. Peter's had been in the Papal mind at the end of the fifteenth century. Rossellino had begun to enlarge the Tribune, and left it. Giuliano da San Gallo was put in charge of the works, and further developed the Tribune, an extension of the old place. Giuliano seems to have been an extraordinarily

influential man, and to him the introduction of a young genius from Florence was due, bringing Michelangelo to Rome, in order to design the tomb for Julius II. The design was so impressive that nothing would satisfy Julius but that the Tribune of Giuliano must be scrapped and a new enlargement of St. Peter's created to contain it. For this Bramante was employed. Bramante comes upon the scene as the first type of professional man, *qua* architect, who could impress his client both by his architecture and by his organising ability. He required an effective staff for dealing with the greatest building in Christendom. Antonio da San Gallo, nephew Raphael, Peruzzi and Fra Giocondo, a designer of bridges in Rome and Paris, advised as to the foundations. On Bramante's death Raphael and Peruzzi take charge in turn. After Peruzzi had been assassinated, the work falls to San Gallo, the chief permanent assistant in the office, who held it in all for forty years. In the background this remarkable genius of Michelangelo was artistically dominating Rome, and evidently creating jealousy. After the triumphs of the Sistine ceiling and wall and the mysterious and wonderful tombs at Florence, he reappears in Rome, having conquered the prejudices of the whole community. Peter's pence had been raised throughout Europe, and had become one of the motives of the Reformation, but the money had drained into the pockets of the architects and the craftsmen without result. The scandal was becoming serious; Christendom was laughing at the man who began to build without money to finish. The new St. Peter's could not be paid for, the old St. Peter's was in ruins. The credit of religion depended on this abnormally huge tower. Michelangelo reduced the plan, introduced a dominating order, and completed the work with which Antonio da San Gallo had wrestled ineffectively.

It is interesting to hear what Sir Rennell Rodd said about the Farnese Palace. The elevation had no power or quality in it until Michelangelo harmonised the whole with an unbroken cornice of splendid proportion and effect.

As Professor Newton has well said, the interest of the personalities of this period is of importance to students. The period itself is rich in material. Vasari, the astonishing diary of Cellini, the modern work of Symons on the Renaissance, all concentrate on this period into which Mr. Worthington has led us so interestingly.

Professor WILLIAM ROTHENSTEIN also spoke.

Professor BERNARD ASHMOLE, M.C., M.A.: I confess I did not know, when I was kindly invited to come here, that I should be asked to make a speech; and since it also seems necessary to justify one's trying to make a speech, I suppose my claim is that I have been head of an institution in Rome where architects study,



and I have been most interested in what Mr. Worthington said about the way in which architects study in Italy. I have seen many of these students, and I have seen many methods followed. Some go out with a notebook and sketch details which I fear—and hope not—they will introduce later in buildings in England. Others pursue one Renaissance architect through Italy. Others take a much broader view still, and try to see and to realise what, I think, is the great lesson which any period of art can teach, and that is, that every true artist does the best he possibly can in the most efficient and the most modern way. Modernism is that; and in that sense modernism occurs at any period. If you can teach that to the architect or the student who goes to Italy, I think it justifies his visit there.

Mr. ARTHUR T. BOLTON [F.]: I should like very much heartily to congratulate Mr. Hubert Worthington on his most valuable paper, because he has told us a surprising amount, very much that I believe quite new and the result of a very special study. He has mentioned Benvenuto Cellini, whose memoirs give such an extraordinary and vivid picture of the period. Cellini says that the Pope, when he heard the news that Cellini had escaped from the Castle of S. Angelo, remarked, "When I was a young man I descended from the very same place." On which Cellini remarks that it was true, but he was put in prison for a serious crime: he had forged a Papal Brief, but "I upon an unjust accusation." Cellini had put his dagger in his boot, but when he had descended near to the base of an outer wall he had had to drop some feet, and thus he broke his leg about three inches above the heel, and so had to crawl along the streets to a Cardinal's Palace, where he took refuge. Apart from that, Cellini got away from the Castle of S. Angelo as successfully as the Pope in his youth had done.

I think perhaps that Mr. Worthington has been so closely engaged in studying the San Gallo, that possibly he is inclined to attribute rather more to Antonio than one can altogether agree with. Take the Linotte Palace. I noticed in particular one thing on the spot, that the setting out of the Doric Order in that tiny courtyard is of an amazing complexity; you would almost have to draw it full size to get it right, as the management of the classical detail is of an exceptional character. I should hardly think that the work can be taken away from Peruzzi. It is not a long walk from the Massimi Palace to the Linotte Palace, and I think many will agree that nothing done by the San Gallo was quite of the same character. The trouble with the work of the San Gallo is that, on the whole, perhaps owing to the amount of engineering work that they did, it shows an element of coarseness, very different to the almost Grecian refinement of Peruzzi. Take the church at Montepulciano by one of the family. The inside Doric

order of that is a great trial; it is very different matter at the Church of Todì, which is a work attributed to Peruzzi. The San Gallo Church is more attractive outside than in. One of the most interesting works executed by the family is the Poggio laiano Villa outside Florence. All the English visitors went there in the old days. The outside of it is a not unattractive Tuscan, but over the loggia is a wide pediment, which quite spoils it. Going inside, however, one's breath is almost taken away. There is a grand sala running up to the roof, on an immense scale, with a fine coffered vaulted ceiling. The outside does not give you any idea of the splendid room within. I remember very well the Monte Fiascone church which has been mentioned. It is an extraordinary one, because it has one of the largest domes. When I was there, there was great excitement because a local architect had erected a remarkable internal scaffolding to paint or repair the dome. It was put together with sticks, and the architect was very proud of this work, but I do not think any English workman would have been willing to go on it. The dome is constructed on a series of concave curves visible externally. I passed the lake of Bolsena, driving from Viterbo to Caprarola, but I did not see the temple we have been shown to-night, otherwise I should have inspected it. It was a fine drive, which took several hours with two horses, I remember. Unless there is some extraordinary new evidence I cannot think that the universal tradition of Vignola, in connection with Caprarola, can be so mistaken as the lecturer has implied to-night.

Caprarola is a place that must be seen on the spot to understand the idea and grand effect on its site. I do not know what can be done through the study of the drawings in the Uffizi, as I was in Italy 40 years ago, when I was seven months in the country. I have never seen more than some of the reproductions which have been published of these original drawings, but it is extraordinarily difficult to be certain of the attributions. A number of people, I believe, do not entirely agree with Geymüller's attributions of various drawings, but it is a very difficult subject, and requires great caution where a long-standing tradition is to be rejected. The Madonna della Quercia church outside Viterbo is a beautiful thing; I came upon it while going to see the Villa Lanti. I can quite understand that Antonio da San Gallo, with his special knowledge of carpentry, would do a ceiling like that, but I cannot say I have seen any masonry work of his which would justify one in taking away that little Roman Palace from Peruzzi. The general character of the Farnese does not seem to justify it.

With regard to St. Peter's, there is an interesting point in connection with San Gallo's design because that Vestibule feature is very much like the model design for St. Paul's in general idea. It is very probable that



Wren had received an account of San Gallo's model; travellers like Evelyn would tell him all about it. I have never seen the model, as I did not know it existed. The grand objection to San Gallo's design for St. Peter's was that it promised an endless amount of work. The scale of detail was relatively small, so that the amount of work on a structure of such vast size would have caused the building operations to last for ever. The great merit of Michelangelo was that he reduced the project, and put it on such a relative scale that it became possible of execution.

The PRESIDENT then put the vote of thanks, which was carried by acclamation.

Mr. WORTHINGTON (in reply): I want to thank

Sir Rennell Rodd, Professor Newton and the other speakers for what they have said. I must however, disagree with Mr. Bolton's remarks about the Linotte Palace. I spent many weeks measuring first the Palazzo Massimi and then the Palazzo Linotte, and I am absolutely convinced that the latter is by Antonio da San Gallo the Younger, and there are, I know, many authorities who back me up in that opinion, including Burckhardt.

As to Caprarola, there is an authentic drawing showing that the pentagon was Peruzzi's idea, though his cortile was pentagonal like the exterior, not circular. Vasari states that Antonio began the work. I do not want to detract from the merit of the work of Vignola, who, of course, executed the building as we see it.





## Italian Masters and Other Designers\*

BY MAJOR HUBERT C. CORLETTE, O.B.E., F.S.A. [F].

(Continued from Journal of 12 April.)



BIRTH OF VENUS. By Botticelli

AMONG the different subjects illustrated there are not so many of allegorical or mythological ideas as we might perhaps expect in a collection bequeathed by the Italian Renaissance. No doubt the most prominent decorative composition of this kind of subject is the Birth of Venus by Botticelli. Certainly a masterpiece in design and technique. Its colour quality is somewhat altered by the unavoidable green added to it by the thick plate glass that covers it. Like so many of the works shown, the medium in which it has been executed is tempera, not oil. And it is on a linen ground, not canvas or wood, as many are. In its general effect it looks much like a fresco. Apart from its technical qualities, it may perhaps be looked upon as indicating something of the revived paganism that was present among the many finer aspects of this Renaissance. But none need deny the imaginative power in some of the mythical stories, or the beauty of design by which they have been presented whether in Greek, in Roman, or in the Italian revival examples.

\* The first part of this Paper was published in the JOURNAL of 12 April.

We need not suppose that this Venus is only, or merely, a charming pagan. She is a most interesting person in so many ways. And she belongs to all history, all tradition. She may be traced back into the dim beginnings of time. And her significance is not only planetary. Her relationship is not alone with the sun but also with the moon. She shines as a lesser light among the orbs of the heavens. It is a reflected light, but light it is though derived from a source not her own.

Botticelli in his treatment of the mythical Venus appears to combine in this design one idea used by Phidias and another from Praxiteles. But as they were prevalent notions and common property they were as much his own as theirs. And Venus as the goddess of beauty, or of love, sacred and profane, is a very old device in decoration. Sometimes it is not easy to discover where the sacred or profane intention begins or ends in much mythology, as in the Venus and Medea by Titian of the Capitoline known as "Sacred and Profane Love." For Euripides shows us a Medea who may be compared in many vile respects with the Ishtar of the Legend of



Gilgamesh. But, looking at this great work by Botticelli, we are compelled to seek his meaning in design. We must ask, what does he design, what does he say? Beauty, in the figure of a woman, has risen from the sea, unclothed, naked, unashamed. Another figure, clothed, offers her a wonderful garment with which she may be clothed. This figure emerges from a grove that might be the Garden of the Hesperides. The garment which she offers to Venus is, like her own, decked with beauty as the flowers of the field. The giver of it wears a wreath like an olive branch about her neck. Is she a figure presenting the garment of wisdom as a robe of beauty? Does she, in some way, suggest the "oil olive," the "oil of gladness"? Venus is in this design breathed upon by two attendant figures that quite clearly suggest the wings of the life-giving wind, for they float in mid-air above the unruffled sea. Venus, as the evening star, is Hesperus. She is, therefore, in some way related to the work, or works, of Hercules. But Venus, the planet, is not only Hesperus, the evening star; she is also Lucifer, the morning star. And in addition she is one of the days of the week, for she is Freya or Friday, the day of freedom. And Freya, the word in Scandinavian, means fair, bright, glorified.

We have become used to associating the name and the word Lucifer with the idea of pride—proud as Lucifer became profane. Lucifer, the real meaning of the word, is the light-bringer. Hesperus means beautiful, and the early Hebrew, Arabic and Sanscrit names for this planet all mean much the same. So we may conclude that Venus, before she became associated with the fictions of pagan legend, was regarded as one who is a woman beautiful, a light-bringer, both in the morning and in the evening of the day. And in the presentation of her to us Botticelli shows her being provided with a garment, a robe of beauty, something by which she may be clothed with the grace of some new comeliness.

It is from the winds of heaven that she receives the breath that is her life. And it certainly looks as if Botticelli not only painted a very decorative picture but also designed a parable, without a word. In all early tradition Venus is the beloved, the bride of one who is divine; and her light, life and motion depends upon the sun. She is not worshipped always as a goddess but regarded as a symbol, looked for daily, in the morning and in the evening of time, as a promise, a significance, a sign.

I am not trying to suggest that the several versions of the pagan myth of Venus or Aphrodite, Astarte, are not really profane in comparison with other and more sublime ideas of beauty in person, in appearance, in character and in meaning. But comparing the merely humanist idea of the subject with other, and earlier hints to be found in tradition it does seem that Botticelli was not concerned only with a pagan aspect of the design. For he introduces differences of treatment that relate his conception to a traditional decorative scheme which, in origin, is earlier certainly than any Roman or Greek forms of it. His version is clean. And it is in the stars and in the constellations. It may be that the Greek idea of Venus rising from the sea is derived from the great Zodiac once in the temple of Denderah in Egypt. It formed originally part of the decoration of a ceiling like the sky.

There can be little doubt that, judging by the character they show, very many of these fine works were produced as the result of a deep and serious conviction of the importance of the ideas they represented. For though history relates much that is now regretted in the condition of the Church in Europe, in either Italy, or France, Germany, Spain, the Netherlands, or in England, there was much indeed to be approved and there were many who were living and acting on high convictions. Aims of reform were not German nor English alone, they were French, they were Spanish and they were also Italian. It is necessary to realise this in order to appreciate the conditions of life and thought that prevailed when most of the work in the exhibition was done. Some of these efforts towards reform continued. Some were arrested. And it is evident that very many of those great craftsmen were preaching reforms by a decorative richness in design, and by sculptural form, quite as convincing in its way as any words spoken or written by Luther, by Erasmus, by Colet or More, or by Savonarola. Dante, in his banishment from Florence two centuries before, criticised the defects in men and the conditions in which they lived, as Milton, another product of the desire for a renaissance of some better sort, did about two hundred years later. Both used a fine art for their means of expression. And both invented some hot or cold regions to suit imaginary arguments which are far fetched. And these vivid descriptions of discomfort have been used by the other arts to provide them with subjects for design although they both presuppose a somewhat vindictive instead of a beneficent Creator whose purpose or design has never been destruction but always recovery, recall, redemption. It is a design to be worked out in detail by men without compulsion—a constructive scheme having for its basis a special kind of beauty without which it cannot exist. And that particular beauty is shown in active exercise by such a vision of it as so many of these Italians, among others, have put on record. It is a type of beauty we may always revere but not adore except by following the example indicated by the many fine works that represent, in such different and interesting methods of design, the Adoration of the Magi. The Divine and Holy Child is always and without question the central idea, the culminating, and also human, factor in those schemes of design. His Divinity, His Humanity, is clearly insisted upon, for His Mother is never omitted from the composition. She is, and must be, a necessary part of it, if it is to convey any real meaning by presenting a narrative of historic fact with an emphasis that is made so much more impressive by the beauty of the terms in which, without words, we read of it by means of a painter's imaginative powers in descriptive drawing. And in all this drawing there is so much of a structural rhythm, balance, and contrast in composition, whether it be of light to shade, colour against, or complementary to, some other colour in the theme, as well as an accurate observance of modelled forms, relations of scale in the proportions of the various parts, definition by limiting lines, and the use of delicate pattern as an addition to the value of plain surfaces. Unlike some moderns of to-day these masters face squarely the technical difficulty and long patient training that is required to overcome by work the



imperfections of their novice period. All artists are not painters nor are all painters artists. It may be, and is no doubt, true that inspiration of some sort is necessary if great things are to be done. It is a form of vision without the use of which all the arts, as well as political bodies like nations, are dead. But it is only the beginning of toil. And it has to be sifted by the sieve of intelligent discrimination in the form of knowledge, experience, judgment, if the thing imagined is ever to be realised and made of use to anyone. This at least is the practical inference from a comparison of these works one with another. We need only look at the variety of ways in which the same initial idea has been developed to see something of what has been suggested. Compare the several examples of the Magi, the Annunciation, the Holy Family of Virgin and Child, or the Crucifixion and the fact seems evident. The small Madonna and Child by Botticelli, lent by the Poldi Museum of Milan, is perhaps one of the most beautiful things of its kind ever produced. The Crucifixion by Mantegna is also a very remarkable evidence of the way in which this tragedy can be so dramatically yet deliberately and reverently narrated again as a reminder of one of the central facts in the history of humanity. It has been lent by the Museum of the Louvre. But it really belongs to that very fine example of Northern Italian architecture, the Church of S. Zeno in Verona from which it was removed

when Napoleon was in Lombardy. Two other parts of the work of which this subject formed a portion were lent to the collection by the Museum of Fine Arts in Tours. The remainder is still in its proper place in St. Zeno.

The Dead Christ by Mantegna is a curious study of a prone figure seen by the spectator as a *tour de force* that exhibits the power of drawing to represent an effect of foreshortening. Whether it is a really successful example is a question that may be left to the critical judgment of experts whose life's training qualifies them to express an opinion. The point of real interest is the subject. For it suggests questions of some importance in relation to other works which represent the Resurrection. The Dead Christ is a fact proved by the Crucifixion of which there were so many examples in the collection. His death was proved by evidence of fact, as was also His Resurrection. And it will be well perhaps to quote here Sir Ambrose Fleming's observations in the lecture to which I refer elsewhere in these notes. For he shows that there was no Dead Christ except for the brief period between the Descent from the Cross and the time at which His Resurrection took place. He says: "Nothing is more certain than that the Christian Church was built up, not simply on an advocacy of Christ's ethical teaching, but on an unbreakable testimony of eye-witnesses to the supernatural event of the Resurrection." And he adds: "There was absolutely no contemporary evidence in



THE HOLY FAMILY IN THE CARPENTER'S SHOP. By Carracci



opposition to this testimony. The Sanhedrim could have destroyed the faith of the nascent Church at once if they could have produced the dead body of the Lord, or proved that it had been surreptitiously removed from the tomb. Why did they not do it? Simply because they could not."

Of pictures that take the word miracle as part of their title or description in the official catalogue there were several. And among these we may speak of that most certain miracle of the Resurrection by Mantegna. It is one of those from Tours already mentioned as belonging originally to Verona. This subject is evidently one that it is difficult to use as a matter for decorative design. Most of the great designers have attempted an interpretation of its meaning. Dürer, who was in Italy early in the sixteenth century, did a very fine decorative conception of this subject. And as a great admirer of Mantegna's work he may have been influenced by him although the two never met.

The subject was regarded by Paul of Tarsus as being of such exceptional importance that he refers to it on every possible occasion. It is the foundation of all his teaching, all his convictions. Without it, as a reality, little else has any meaning. It is the axiom on which he builds everything. To Peter also this same strange but true fact of existence was evidence, definite scientific proof, of some fresh experience in human history. It was, for it could be no less, a new creation. Why is this so? What does it mean? We may be allowed to ask these questions if we are to try to begin to understand something of the elements of design in the arts, in nature, and in other directions. No man concerned with the arts, and certainly no architect, if he wishes to understand the narrative value of decorative design, can neglect such questions. For the discovery of some reply to them seems to be the key that will enable us to lift a lid that covers much obscurity. They do not concern the Italian nor the earlier Gothic Renaissance alone. All history, all design, all decoration, from Chaldea and Egypt onwards, and as far back beyond history as we can go in tracing a tradition, seems to be concerned with the idea of a Resurrection.

An address was given by Sir Ambrose Fleming last year, as President of the Philosophical Society of Great Britain, on "Nature and the Supernatural." And if he, as the inventor of a valve that made wireless transmission possible, may approach such a subject why should not others do so if it is their business to study all questions of design? To this address public attention was drawn at the time, and since it was delivered the subject has been referred to in the press and elsewhere on several occasions. And now we have it put before us as a question of design, and also, if it may be said, as a thing, an incident, of beauty affecting life.

It may be assumed, therefore, that it is a matter about which there is some general interest at the present time. In these notes there is no room for theory or speculation about such a subject. And it is as unnecessary as it would be absurd to do more than speak of facts concerning it as something to which the workers in the arts of design have drawn particular attention. What is it then of which these men speak? Simply a fact of existence; a new and unexpected experience it is true. But it was,

as the most reliable, undeniable evidence shows and proves, as much a scientific fact, a discovery, as the apparent fact that there is a similarity in principle between atomic and astronomic structure, or that we know by our five senses, aided by the apprehension of mind, that we can make machines that will receive and transmit sounds, words, ideas from London to New York or Sydney and back again. It is merely a question of evidence, experience, proof, reliable witnesses. Nobody could be expected perhaps to believe and accept as truth such a declaration as fact without proof. And none were required to do so. And not one man did so till evidence was produced that no one in his senses could resist. It was on the self-evident living existence of this One Man that the whole future of things, after that event, was, and is to be, built. And it is on the reality of this one single, simple, if extraordinary fact that the truth, reliability, and value, of every word of Scripture is based; and on nothing else. It was, and is, part of the scheme of evolution but an evolution that admits, proceeds from, an initial creative act. For as Darwin in his *Origin of Species* says, speaking of other matters: "Grave as these several difficulties are, in my judgment they do not overthrow the theory of descent from a few created forms with subsequent modification." Is this fact a "subsequent modification" of the genus homo and not one in a particular species of that genus? If at one time there could be "a few created forms" why not again? We have been told on good authority that this fact was the evidence of "The beginning of a new creation." There can be no descent without generation, by progenitors, from the few first created forms. Can there be any descent from the second created form, the re-creation, except by what has been called regeneration, a new birth, a Second Adam? All schemes of design, structural or decorative, human or divine, say—no, it is impossible. That seems to be the one outstanding declaration of this amazing array of all the best that the genius of Italy has shown to us in this great legacy of theirs; a thing of beauty sanctified and enshrined. It is not a doctrine, not a belief, not a creed; but it is a fact of work, of experience, of life.

This idea of regeneration is no new thing. It was not a novelty even in St. Paul's day as he himself quite clearly admits. And he does so by quoting from a Greek poet these words, "For we also are his offspring." And he continues the argument, proves it practical by what? By reference to the fact of resurrection. But who was this Greek poet? It was Aratus, also a native of Tarsus; he lived about three hundred years before Paul's day. And the poem with which Paul showed his familiarity was called *The Divine Signs*. What signs were these? They are the same signs as appear on some fine wrought metal gates recently fixed at the entrance to a modern shop in St. James's Street of which I received an advertisement lately. Some of them appear on parts of another design based on old Greek coins for a door to a bank building in Southend. Where, then, did Aratus get these "Divine Signs" as he calls them? Another Greek, Eudoxos by name, living about 403 to 350 B.C., wrote a treatise on astronomy which he called the *Phainomena*. By command of Antigonos



Gonatus, a Macedonian King, Aratus put the work into verse form. There is much more to be found relating to these same Signs in the British Museum collection of Chaldean records, both Sumerian and Assyrian, as well as those of Egypt, especially in the papyrus rolls called *The Book of the Dead*. And they show the historic as well as artistic value of design in decoration.

Leonardo da Vinci in his design of the Last Supper, a master work of the Renaissance, by one of the most brilliant minds of his age, reveals how some other aspects of a great design were seen by him. In it he gives us a direct statement that he is concerned not merely with a doctrine but an existence, not a theory or a philosophy but a life. He illustrates and illuminates the fact that this is a First Communion, a First Sacrament as well as a Last Supper, at which a rite of sacred import was instituted. He shows us a live Man among living men. And the acts He performs, the words He speaks, as a living Man, at that historic gathering, were said and done before the weak judicial surrender of Roman civil law, and Jewish legal tradition to mob violence made possible such a Tragedy as Mantegna describes in his realistic Crucifixion scene. Lord Shaw of Dunfermline, in his recent judicial study of the trial, shows how the failure of human ideas of justice led to an act of reconciliation. Leonardo depicts a Sacrament, not a miracle. Mantegna delineates in his conception of the Resurrection a design in which we see a miracle as an event no man can explain, nor explain away. And curiously it is that one event which of itself does explain so much that otherwise might seem incredible. A Death had proved the Humanity of the Victim. But this event proved the Divinity of the Victor as nothing else did or could. And it also made credible every true record of His birth, His life, His acts, and of His Word. And it should be noted that, at Emmaus, after this event the same Victor, no longer a Victim, by His speech and visible action at another, a second, supper proved His identity, and He was then recognised as a Man; living, moving, and having being. It was this that cleared away the mist, it cleared the air, and darkness fled before this strange dawn of a new Life, a new Light. The whole sequence of things, in a long record of design stood revealed, pictured, before a startled few. But the few told of what they saw, declared what they knew, proved it; many died because they were convinced by the certain truth of it. And in doing so they gave a new energy to thought, a new aim and hope to men; they revolutionised a world, not by force but by reverence, by respect for law; a new law that moulded their inner being, governed their acts, and gave them that peace of mind which these paintings show as a new beauty made visible in every form and face, every colour, every feature.

And so I would urge that if by design, constructive design, and a decoration that can be made full of meaning, by men who know their work like these, such men should be encouraged to put on record their visions of things for the benefit of the human race. In mediæval days buildings, statues, carvings and designs in decoration, these were the books that all men could and did read. In the later days of the Renaissance books began to compete with, but also to add to, the knowledge to be derived from the arts of design in various ways. But now the world is nearly sub-

merged in another flood. It is a flood of printers' ink. And a very small proportion of it has any real value as a fine literature, the power of which is increased by its possession of an ability that indicates some evidence of a design we may respect or admire.

Sir Ambrose Fleming, in his critical examination of problems of Nature and the Supernatural, has shown that a miracle may also be a scientific fact proved by the evidence of twelve good men and true against the assertion of those who did not, because they could not, produce any evidence of fact to the contrary. But not all miracles are necessarily proofs, signs of things we may accept or follow. We are entitled, we are in fact authorised, to test and prove, by directions long since laid down for our guidance, whether things are true or false. We have to distinguish between good and bad design. For some things can be evil by design. And unless we are sufficiently trained, by competent advisers, to see and know the difference mistakes may be made. We may in fact approve in ignorance, by a lack of educated discrimination, things unworthy of our regard. We may exercise our independence and say we know what we like where design is concerned. And it is well. For the responsibility for selection or rejection rests with each individual. But it is as well to be sure that what we like is worth liking. And it is by exhibitions of this kind, if not by commentaries on them, that we may educate our tastes and discover how or what to enjoy in things of design. Truth of fact is the basis of true design.

The leaf from Vasari's *Libro dei Disegni* catalogued as *The Affliction of Job*, is a series of sketch studies chiefly interesting for the small portrait of Filippino Lippi. The exhibit invited attention partly because of the literary importance and the dramatic power of the story, and also because it is a subject of interest in so many different ways. Some have regarded the story as an allegory in which Job represents the Church in her original unity, his three friends the three larger sections into which the Church has become divided with the particular and characteristic views or aims of each. Elihu, the fourth of those who appeal to him, being another by whose aid he is to recover his possessions and be restored, and his trials ended, "when he prayed for his friends" after listening patiently to their various suggestions for his remedy over a long period. If he does represent, as some say, at first an original condition of prosperity lost, but afterwards restored; if he is Christendom in a state of some confusion; then his story becomes a little more interesting to-day, for it seems as if he was beginning to pray for his friends. And he may, like a valley of dry bones, be soon revived.

The subject of Job is also interesting in so many other ways. As one of the oldest books in the world it shows that with him as with the Egyptians and so many others the idea of Resurrection, as a hope or a belief, existed as a doctrine long before it became a fact of experience; when it ceased to be merely a doctrine. But his utterances also show that the beautifully written manuscript of the fifteenth century lent by Mr. A. C. Beatty owes something no doubt to him. It is the volume of decorative drawings in line and colour of the constellations catalogued as "*Hyginus, de Sideribus*," Mazzaroth, or the Zodiac Signs, were evidently familiar when the book of Job



was written, as some of the constellations are named in it. What Hyginus has to say of the stars is not suggested by the catalogue. But we know something of the curious superstitions that were developed by those who professed to be astrologers. No doubt their claims had some foundation in a tradition which had become perverted through the ages. For astrology of course means the Voice of the Stars. And to us the question is, have they a voice which we in any way can hear? Modern scientific research in archaeology seems to show that they have,

astronomical and also archæological. And they help an architect to try and understand something of design, particularly, shall we say, of the Parthenon, or of some carved panels on Amiens cathedral, or in the stained glass at Chartres. It is necessary to realise that there is some design in these Signs. And it is made evident by the fact that there is good authority for saying that there is a definite order of sequence in their earliest arrangement. It begins at Virgo and ends with Leo. This sequence has always been arranged in three major groups or books.



THE CITY OF LONDON FROM RICHMOND HOUSE. By Canaletto

not by the somewhat ludicrous absurdities of a perverted astrology, but by a reading of the original meaning in the names of the principal stars of each Sign or Constellation. I use the distinction or because there is a difference. For all tradition through some six thousand years has preserved this difference. There are the twelve Signs; but there are also thirty-six of the original constellations. And they, together, form what appears undoubtedly to be the earliest consistent decorative scheme known to man. We are not here concerned with vague inventions or superstitious accumulations alone. There are these surrounding the stars. But there are also some facts

Each book has in it four of the Signs and with each of these Signs three of the thirty-six dekans or parts are associated as minor groups, or chapters, of a book. In the names of the principal stars we find practically all the Greek mythical characters, as Sir Isaac Newton and others had observed. But those characters are not only Greek. There is an evident affinity, a parallelism, by which they are related to similar fables in all other mythological traditions. Are they all then a series of interesting inventions, poetic versions, or perversions, of some original traditional scheme the beginning of which is traceable back, not to its origin, but as far back as any sort of record



can carry us, even to prehistoric times. This appears to be so. Where does the Parthenon get its name if not from Athena Parthenos? She is Athene, Minerva, the goddess of the sacred wisdom, patron of the arts, that is of design. She wears a breast plate, and a helmet of gold encircled by an olive branch. The Latin name for the first of the Signs in the series is Virgo, the Virgin. It is also Virga, the Branch. In Greek it is Parthenos, the Virgin; in Hebrew it is Bethulah, with the same meaning. The meaning in the Arabic names of the principal stars supports the idea of the figure always used as the design to represent this Sign. It is a woman bearing a branch in her right hand and an ear of corn in her left. The three constellations associated with Virgo carry the idea of design a stage further. The first is Coma, represented in its older form as a woman and child, for so it still appears on the Zodiac stone from the Temple of Denderah in Egypt, now at the Louvre. The names of the stars in this group again mean a virgin and the desired one. The old Egyptian name for it is Shes-nu, the desired son. The second is Centaurus holding a spear and piercing a victim. The names of the stars give the meaning the despised, the pierced, the sin-offering. The Centaurs in the metopes of the Parthenon are well known. And there are several used for purposes of design among the exhibits of the collection now being considered. The third constellation is Bootes, a man moving quickly forward having a spear in his right and a reaper's sickle in his left hand. The name Bootes means the coming one. The Egyptians called it Smaat, which means one who rules and governs. The principal star in this group is Arcturus, meaning he cometh.

This subject could be pursued in more detail and its interest developed further as something giving a narrative value to decoration did space permit. But enough has been said to shew a relationship between the volume "De Sideribus" and "The Afflictions of Job," and also to indicate that a relic of Egypt, now in Paris, owes something to a pre-historic decorative scheme from which there seems reason to suppose that the sculptors of the Parthenon friezes also derived ideas.

A few words may be added to suggest relationship with the numerous designs in which the Cross appears. As a sacred emblem it has been used almost, we might say, everywhere from ancient Egypt to early Mexico. Some have thought that it is therefore not exclusively a Christian symbol. It need not be so, for it concerns not one people, nor one faith, but all. And so far as origins are concerned it seems to be met first, like the idea of sacrifice, or the sacred tree, the Tree of Life, among these Signs or constellations. The Crux, or Crux Australis as it is now, is one of the dekans or parts which have always been grouped, together with two others, with the Sign Libra. It was once visible from the latitude of Jerusalem. But by the recession of the Polar Star its position changed about the time of the Crucifixion. It disappeared from view in the northern skies. The tradition of its existence remained, however, and it was rediscovered during the Renaissance period when the southern seas were explored. Its early Hebrew name was Adom, and meant cutting off. Another Hebrew name was Tau, the last letter of the Hebrew alphabet, made in the form of a cross, and it

meant a mark, a boundary-mark, a limit or finish, a landmark, or, in other words, "It is finished."

The second constellation of this group has for its modern design and name Lupus, a wolf. Its earlier Latin name is Victima, the Victim. Its old Hebrew name was Asedah, or, in Arabic, Asedaton, both meaning to be slain. Some of these interpretations may seem strange and far-fetched in more senses than one. But when we discover a meaning by a strict translation of old words and names which have been carefully retained by custom in design, by tradition in their decorative use, they derive a narrative value worth considering. And when this narrative is a consistent whole revealed, if we may put it so, by the names attached to no less than forty-eight different designs applied to as many different Signs and constellations, and perhaps a thousand or more different stars, we may not be far wrong if we conclude that there is some definite design of Mind speaking through all of them, though there is no speech nor language—their voice is not heard. If we see nothing else we do, I think, discover some narrative value in decoration. For that at least is what all these great Italian designers saw and used so well.

The story of Job has long been regarded as an interesting subject for purposes of sculptural or pictorial design. For it has, in itself, so much evidence of dramatic and architectural structure, epic in form, with a strong delineation of differences in its characters. What a contrast, for instance, there is between this Semitic record and the Sumerian one called the Epic of Gilgamesh. The quest of both themes is immortality. Job expects it, seeks and waits for it; and he finds it.

In the British Museum pamphlet by Sir E. Budge the difference is clearly shown. And if we see something of the story of Job and his friends in the conditions of to-day we also certainly see much of what the legend of Gilgamesh shows in its study of a peculiar character that Russia perhaps reflects. Like the Book of Job, it refers to the Zodiac. But, unlike it, the creature described as like a beast is a sort of man appearing as a kind of god. He enforces toil and misery and untold suffering on those over whom he rules as a kind of king. They seek deliverance. So a rival "male creature," who is mighty and invincible, is made of clay, who lives with, and like, the beasts, but still is also a sort of god. These rivals become allies, who return together to the oppressed people and compel their admiration. The second animal died. But the way of his end is missing from the Assyrian text. They thought they had destroyed "the heavenly bull," presumably the Taurus of the Zodiac. Then the first beast, desiring to escape from death which he supposed to be inevitable, set out on a journey to discover the secret of immortality. On the way he meets, and is terrified and delayed by, "the Scorpion men." These no doubt represent Scorpio, another of the Mazzaroth Signs. He meets a goddess who is an "ale-wife." To her he relates his fears, saying, "Shall I also be obliged to lay me down and never rise up to all eternity?" This goddess tells him his quest of eternal life is vain, and advises him to enjoy himself all he can and give up his hopeless journey. He meets one who tells him death is inevitable. Another adviser informs him of a plant, the possession of which



would give him the immortality he seeks. It grew in the depths of the sea. He found but could make no use of it. And so, falling in his search for eternal life, he decides it is best to know the worst by calling up the ghost of his dead ally so as to make full inquiries about "the condition of the dead in the Underworld." In all this we see a sketch of some ultra-modern ideas, supposed to be new, but which are as old as the hills, a revival of an antiquated necromancy. It would provide material for design in contrast with the story of Job's pursuit on a similar quest. But Taurus and Scorpio are part of the theme. The Sign Scorpio, with the three dekans, always to be read with it as part of the decorative scheme of the Zodiac, is interesting. The "Scorpion men" are Ophiuchus and Hercules, two of these dekans. The other is Serpens struggling but held by the grasp of Ophiuchus. Scorpio tries to wound Ophiuchus, but is trodden under foot by him. The name of the principal star in Scorpio (in the heart) is, in Arabic, Antares; it means wounding. The Hebrew name of the bright star (in the neck) in Serpens is Alyah, the accursed. And the other star, also of the first magnitude, in Ophiuchus (in his head) is, in Arabic, called Ras al Hagur, the head of him who holds. In Hercules a similar star (in the head) is called Ras al Gethi, meaning the head of him who bruises.

The other Sign, Taurus, is similarly full of meaning, reached in the same way. There seems to be every reason to think that in this we find the origin of all the Bull legends of the world, first shown as design in decoration, plastic or graphic, and later in epic and mythical written form. Every architect knows him in the history of decorative design as a subordinate element in any structural conception of architecture as sculptural form. And so does every painter, every sculptor. At the present day he appears as a meaningless, emaciated emblem of nothing but a cheap commercial bankruptcy of design in the skeleton head of a defunct beast in the metopes between the triglyphs of some sham Doric frieze. But he is also found in Egypt; in the Assyrian Bull of Nineveh; in Cretan sculpture, and colour decoration; or in the vases of wrought gold found near Sparta, which represent a hunted bull. Bull-baiting is still a pastime in the East; and the Spaniards continue to practice it as a crime among the very enlightened people of the West, sticking arrows into a dumb, defenceless beast. But is he altogether speechless? Not so in the Zodiac Signs. For there he speaks quite clearly. The star Al Debaran (in the bull's eye) has a Chaldean name; it means the leader or governor. An Arabic name is El Nath, meaning wounded or slain. The Pleiades cluster is in this Sign, and the word means the congregation of the ruler, the judge. Another group, The Hyades (in the face of the bull), also means the congregated. The dekans of Taurus are Orion, Eridanus and Auriga. The star Betelgeuse, in the right shoulder of Orion, means the coming of the branch. Another, Bellatrix (in the left shoulder), means coming quickly. And, briefly stated, Eridanus is the river of the judge; Auriga, the shepherd of the flock.

The discovery of another planet adds something of present-day interest to our wanderings among the stars to find the meaning of the earliest composition in design of which we have any knowledge. But let me first notice some references to a new star or to new stars.

In the year 125 B.C. a new star appeared. It was so vivid as to be seen by daylight. Its arrival was the cause which led Hipparchus to prepare his catalogue, of which Ptolemy, in the second century A.D., gives us his record. Again, later on, an Arab historian of the thirteenth century, quoted by an English Oriental scholar of the seventeenth century, states that Zoroaster, said to have been a pupil of Daniel, predicted to the Persian magi that a new star would appear. This star, so he is reported to have said, was to presage the birth of a child whom they should revere. There seems no reason to question the actual appearance of this new star as an astronomical fact. And Kepler's calculations, accepted by others, showed that a little before its appearance there were three conjunctions of the planets Jupiter and Saturn. This particular star appeared in the constellation Coma, one of the dekans of Virgo. And Coma means, as stated already, the desired, or the longed for. So it may be said that tradition and astronomy both seem to add interest to the many designs we know which show the Adoration of the Magi and other kindred subjects. We are told that a new planet has been discovered recently. But it seems uncertain yet whether it is a planet, a star or a comet. The point of peculiar interest concerning it from the aspect of design is the statement that this new planet is said to be in the tenth Sign of the Zodiac series known as Gemini. Those who have made a study of the significance of mathematical numbers as entering into schemes of design say that ten means completeness, like, for instance, the decimal system on which all numeration rests. But the Sign is generally known as The Twins. The old decorative device for this Sign has varied a little at different times. The Greeks called the two figures in it Apollo and Hercules. To the Romans they were Castor and Pollux, the Dioscuri. They gave a name to the ship in which Paul sailed from Malta to Syracuse. And as they were regarded as the special protectors of mariners, particularly of the Argonauts, we may trust they will watch over the decisions of the present naval conference. The fables connected with them are legion. And the pagan mythical ideas they represent have been used in decorative design both by painters and sculptors ever since Homer or Virgil mentioned them. In the recent exhibition we have seen them variously used in many beautiful examples of design. But have they a meaning at all related to the non-pagan side of this collection? If we turn to archaeology and to philology we certainly find other, and different, suggestions. Take the name of the Sign first. In the Denderah Zodiac, now in Paris, the name is Clusius, or Claus-trum Hori. It means the place of him who cometh. The Coptic name is Pi-Mahi, the united. The Hebrew is Thaumim, also meaning united. In Arabic it is the same. Everybody knows this Sign, for without thought either of astronomy or of a perverted and superstitious use of astrology, we all know the phrase, "by Gemini."

Next let us look at the principal stars of the Sign and we shall again see design. In fact, we may now ask what is design? It is de-signs, something we derive, deduce, extract, discover from a sign; it means a drawing. Hence we may suggest that the Signs of the Zodiac, being the oldest form of any known decoration, are themselves the origin of design. All other design is, or shall we say may, or should be, related to the design of which they can tell



so much. The Sign gets its name from the two principal stars. Apollo, or Castor, is of the first magnitude, and is in the head of one of the two figures; Hercules, or Pollux, of the second magnitude, is in the head of the other. And it may be observed that in all old descriptions of any of the decorative devices by which these Signs or constellations are known the precise position of the star is always insisted upon, as, in the head or foot, body or arm, and otherwise. Apollo means ruler, or judge; Hercules, who comes to labour, or suffer. A star in the

Persian names of the group mean leader, chief or prince. And this meaning is supported by the names of the other stars in the constellation. One star, for instance, means prince, or chief of the right hand, and one in Canis Minor means prince or chief of the left hand. Procyon, the star of first magnitude, in the latter means redeemer.

Egyptian, Greek, Syriac, and Arabic authorities always give the Zodiac in twelve groups. And with each group, as we have seen, are three stars or constellations known as the thirty-six dekans. A curious point is that in Greek



WHITEHALL FROM RICHMOND HOUSE By Canaletto

left foot of Hercules is called Al Henah, meaning hurt, wounded, afflicted. Another in the knee of Apollo is Mebsuta, with the meaning treading under foot. Three others have in Arabic and in Hebrew a name which translated is the branch, spreading; the palm branch, and the seed or branch. And the three dekans, or parts, always associated traditionally, carry on the idea of design. It will suffice to name one only, known as Canis Major, the Dog. It is also known as, or named by, the remarkable star of the first magnitude in the head of the figure, called Sirius, the Prince. In some planispheres the figure is represented as a hawk or a wolf. But the Akkadian and

descriptions these dekanoi are also called episkopoi, that is bishops, overseers. Why bishops? Apparently this term is used in a Greek version of the Babylonian Legend of Creation by Berosus, a priest of Bel, at Babylon, about 250 B.C. The suggestion is interesting when we take other traditional designs into consideration. In one well-known Scriptural vision seven stars are referred to as symbols of bishops, or angels, as overseers.

The dekans are, as we know, "parts" of the Signs. The Signs themselves are "steps." The Signs are associated with the twelve months of the year and with the Twelve Tribes of Israel. They are also associated with



the Twelve Apostles in the Carolingian design at Oxford, to which I shall refer. The inference carries us somewhere near the region of modern questions concerning episcopacy. For these astronomical bishops are associated with the astronomical apostles as dekans or parts. Evidently something of a permanent, a perpetual, relationship is indicated astronomically! And these astronomical dekans support the Signs to which they are subordinated. The Signs are not complete without their respective dekans, and the dekans depend for their full use and meaning upon the Signs. The Signs are all related to the Sun. In fact they are only to be understood by their relation to the Sun as he runs his appointed course in the heavens. And if we translate a reference to Constantine as having been called Isapostolos, equal to an Apostle, we have the suggestion that the head of the civil power, in the person of the Emperor, was provided as a substitute for one or all of the Signs; and the dekans, or the episkopoi, the stars, approved the alteration in design at Nicea. It looks like the beginning of a long story of resort to civil authority to make good an ecclesiastical deficiency.

I have already mentioned Eudoxos and Aratus in these notes. The former prepared his astronomical record during the fourth century B.C., and Aratus put this into verse about one hundred years later. These descriptions have been examined by those competent to express opinions on them. And it is found that they do not represent any actual observation of the position of the stars or Signs as they were to be seen by them in their own day. They appear to have been written or compiled from some older record of the Zodiac figures which was available for their use. They relied, as I rely, on the work of others for much which they relate. And the record they give is one that shows the positions of the Signs and Constellations as they were about four thousand years B.C. For the pole was then the star Thuban, a Hebrew name meaning subtle. It was in the constellation Draco, the dragon or serpent. In the Egyptian Zodiac of Denderah the name is Her-fent, and means the serpent accursed. Another star (in the head of the dragon) is known by a Hebrew name Rastaban, meaning the head of the subtle. The Arabic name is Al Waid, and means who is to be destroyed. But, by the slow recession of the pole, the star Al Rucaba, in the constellation we call the Little Bear, really the Lesser Sheepfold, is now the pole. The old name of the star means the turned or the ridden on. To the Greeks it was the cynosure. It may be added that it was this change in our relations with the Pole Star by which the constellation Crux Australis, once in the northern, is now in the southern hemisphere. I make no foolish predictions. But I do suggest that some facts to which attention has been drawn are at least interesting as part of an inquiry that concerns design.

Men write about the rise of Christianity. Some, thinking of it in relation to other ideas of belief, speak of the older religions of the world. There are no older religions. It is the fount, the origin, of all. They and it, in course of time, by many inventions, have been like some wandering stars. Such a declaration may sound absurd. But there seems to be evidence for its support.

Other stars which have kept their ordered course and

followed the astronomic law of their being have not departed from that law. It has been a physical law. But it has been used to exhibit another, a law of Mind. And that law is written in the stars themselves. Mathematical calculations will detect relative variations of position among the stars; anthropology will show differences of interpretation; mythology indicates changes in meaning; but nothing will alter the evidences of plan, of design, in the exhibition to man of one great comprehensive purpose. And if I may attempt to state a brief epitome of that scheme, written in the Signs, and in their attendant constellations, in the original meanings of their names, and also supported by the further meanings in the names of the multitude of their individual stars, it is this one story of design. That design is directly concerned with the main theme of the greater part of the work in the Italian collection we have seen. The first four of the Signs, Virgo to Sagittarius, with the three dekans or parts, twelve in all, always grouped with them, speak of a coming Redeemer. The second four, Capricornus to Aries, and their dekans, speak of the redeemed and the result of the work of a Redeemer. The third four, Taurus to Leo, speak of the return of a Redeemer, the destruction of his enemy, and the consequent safety of the redeemed.

The whole easily reads as if it might be fiction, or a forced interpretation made to fit preconceived ideas. But this, on examination, seems certainly not to be so, because the reading is the result of an almost literal translation of names for the Signs, the constellations, and the individual stars in them. And this not in one language only but in all the different languages in which these traditional names have been preserved.

I am quite aware that such an interpretation is opposed by some biological or anthropological ideas. But if Darwin admits, as he certainly does, the possibility of an original creative act design is implied in one direction. And if in one why not in another? Why may we not think that the Mind of a great Architect has also been revealed in these Signs as a design? They are certainly heraldic in their form. No designs have ever been more so. And if they are heraldry why not a Herald with something to proclaim; a testimony? The Lion of S. Mark is related to the Lion Gate at Mycenae; to Hercules and to the standard or ensign of Judah; to the Lion of England and to Leo the last of the cycle of the Signs. There are four stars known as the Royal stars, which divide the Zodiac at its four cardinal points. As such they are shown on an Assyrian tablet in the British Museum. One of these is in the Sign Leo, its old name is Regulus and it means treading under foot. Other stars in this Sign have names meaning the ruler who cometh, the exaltation, the shining forth. The three other Royal stars at Antares, in Scorpio; Fomalhaut, in Aquarius; and Aldebaran, in Taurus. And the curious thing about these four stars is that they recall the heraldic figures which in one form or another have been used as part of a connected scheme in decorative design since immemorial times. It matters nothing whether we look for them in Chaldean, Egyptian, Greek, Roman, or Mediæval design. They were used throughout all the Middle Ages. And no church building or decoration appears to have been thought satisfactory without their application in some way. But they take the form of the



four beasts of the vision of Ezekiel, or of Patmos, and the Eagle, the enemy of the Scorpion, replaces it. They are usually spoken of as the figures of the four evangelists. And in the glass at Chartres, as Professor Lethaby has shown, the four prophets, Isaiah, Jeremiah, Ezekiel and Daniel carry the four evangelists on their shoulders. But there seems to be a further element of design in these figures when Paul of Tarsus refers to certain ministries as gifts. Are they gifts of will exercised in just rule and government, as in the Lion; of imagination and prophecy, as in the Eagle; of reason or explanation, as in the Man; and of patient contemplation, preparing for and sowing the corn of wheat or barley, like an Ox? However they may be applied in decoration it is surely clear they are some evidence of a design retained by tradition for several thousands of years.

It seems to me impossible to reach any other conclusion from an examination of the ideas of design in decoration if it is approached even with a limited vision of what they show as part of the history of thought. There may be an absence of written literature in a connected form relating to such things. But hieroglyphic or cuneiform epics, sculptural reliefs, decorated papyrus rolls and painted ceilings and walls, as well as other craftsmanship in vessels of daily use are literature for such a purpose as this. And they all show related traditions; a narrative aspect in their design. A gap, a hiatus, in literary records from, say, the third to the eleventh century of our own era is largely filled by a very full library in stones, that speak with no uncertain voice. Much of it is what we might call pagan or profane, and profane it is. But much is otherwise in the definiteness of its relation to the main stream of the earliest tradition in the stars. For instance, there is a set of four casts in the Ashmolean Museum at Oxford. The originals are Carolingian work of the tenth century A.D. now in Munich. They are very beautiful carved miniatures showing full-length figures of the twelve apostles standing each of them in a small niche formed by delicately cut piers and arches. Under the arch, above the head of each figure, is one of the twelve signs of the Zodiac.

We may well ask what is the reason for their use. Why particularly are they associated so directly with the apostles in this way as emblems? And why are they also found used in other ways in Chaldean, in Egyptian, decoration; in the Babylonian legend of the Creation, in the Epic of Gilgamesh, and in the Book of Job, in Eudoxos, in Aratus, in Ptolemy? Surely, we may reply, because they had one origin common to all these. A cult of sun worship, myths of the dawn, scientific observation, as well as the traditional mythology, apparently of every race anywhere on earth, has preserved some record of the Zodiac and its signs and constellations. And what is more, there appears among all these some definite indication of a relationship in meaning, in design. And this meaning relates Hebrew and Christian records to the very primitive ideas still, or till recently, held among the aboriginal tribes of Australia.

And if the evidence of design in this primitive scheme of decoration is true, for so it seems, it may illuminate some things still obscure in the history of design as it is displayed on all the monuments of past ages. For they are all of them graphic, plastic, decorative or architectural



A WARRIOR ON HORSEBACK. By Leonardo da Vinci

literature. And, also, it may show us more of the relationship between this aspect of design and the evidences of it in written literature, whether in an epic, a mythological or a dramatic form.

All ideas of sacrifice, suffering, tragedy, as well as those of joy and final triumph, seem to be linked by an undercurrent of design in generations of thought. Further enquiry in this direction might also add interest to the meeting of Lorenzo and Jessica by moonlight. For it is quite possible that Shylock's venturesome daughter knew, by family tradition, something of what the floor of heaven and the young-eyed cherubim might say. No doubt she would agree with Hamlet that it was, perhaps, the most sublime passage in Shakespeare.

Some apology may be due for exploring the idea of design so far and, as some may think, so persistently. But its value, its importance, in the directions to which attention has been drawn, seems to me to affect so many main avenues of pursuit involving lines of thought that are of interest to all who are concerned with any matters where design is involved. My own attention has been drawn to these things because some part of my professional experience has required a fairly close study of church buildings, their arrangement or plan, and their decoration. And any effort to try to discover the practical or traditional reasons on which either their plan or their decoration is based leads necessarily to many



inquiries. These concern the relations that exist, or did exist, between buildings and the beliefs of which they are a historic expression, or between the ideas developed by, or embedded in, decorative designs and some of the most deeply-seated and age-long traditions or convictions of the human mind. To lay bare some of the results of these experiences and inquiries may be of interest to some. To others they may make no appeal at all. But they do appear to suggest that a few of the questions raised might well be carried farther by those who are more qualified and better able to follow up a quest that might lead to a clearer understanding of the real meaning hidden, but to be found, in historic evidences of design; and also to a truer, more intelligent, use of ideas for design in modern decoration by giving it some deeper appeal by what I have called a narrative value. To me it seems to be a quest that involves a close re-examination of many received notions respecting ideas which have been, and still are, used as a basis for decorative design.

The province of art is to prove the value of design, not only in the arts, but in all things else. And the merit of design, the purpose of it, is seen in the beauty of its truth and the truth of its beauty, in conception, in execution, and in result. It matters nothing whether we use as our aid any one of the arts. For they all depend for their ultimate value, their lasting merit, upon the skill they may employ, and at the same time hide, by using their powers of expression in design.

The question may arise why have I dwelt so long on certain aspects of this exhibition. The reply must be that there was no real alternative if anyone was to extract from it the actual keynote of the whole. That keynote is so clearly a deep and solemn one that its vibrations could be heard; and they could not be silenced by any chords, or single notes, set moving by what we heard, or rather saw. For we did hear, not by sounds or by words, but by the colours of the rainbow and by the intricacies, the subtleties and the strong simplicities, of design. And what is that note? It is one we have heard in Chaldea, in Egypt, in Palestine, in London. It was debated on the Nile, argued on the Euphrates, discussed by Job, declared by Paul.

It is forced upon our notice in every daily paper by advertisements, and recently by several letters, articles or addresses in the Press. One London weekly journal is now publishing a series of special contributions on the subject. It is a question of life or death, of death or life; it is a matter of immortality. And the question always is which shall prevail. We met it during war. We have had it always with us in the days of peace. And we have it now while we live in a kind of warlike state of peace—a subject we cannot avoid if we would. And it is not a subject of gloom, as we have seen, but of delight in design, in colour and in meaning.

I have attempted to emphasise in these notes the value of some intelligent element of narration by decorative design because for years, perhaps it would not be exaggeration to say for a century or more, it has been largely neglected. A phrase has become almost proverbial when any idea of adding decoration to bald structure is proposed. We are asked, what is the use of meaningless decoration? For myself, I agree it is of little use. And some decoration is worse than useless; it has become mere banality. But if we would revive a respect for decoration, create a modern desire to have, and use, and enjoy it there is little doubt that we must give it meaning again. England to-day is possessed of a valuable school of able designers, whether they be painter-decorators, sculptors, workers in any of the other and allied crafts that necessarily involve thought in design. And their abilities are not encouraged by use as they should be. We value and enjoy old masters when or wherever we find or see them. But the young masters of to-day are the old masters of to-morrow. And the English school of the present time is second to none anywhere. If one tithe of the money spent on buying spurious antiquities alone during the past ten years in England had been spent on good modern English work we should be already witnessing a development that before long might give us such a mastery in the arts that none could question and few surpass. By all means let us admire or possess any good foreign works we can afford to acquire. But it is time we declined to support those who trade in trash, ancient or modern, British or foreign. And if exhibitions such as this we have been considering help more towards the cultivation of an educated, a discriminating, taste in things of design they are of some public national value, not otherwise. We spend millions on education in the arts of design. But it is all useless waste unless we are prepared also to spend some percentage of these millions on work to be done by those who spend their time and energy in training their native gifts and capacities. Things that are for use should all be things that have some beauty of thought expended on the making of them. And I think it may be said with truth that there is some real practical value in a thing because it is beautiful, whether it is useful in the philistine sense or not at all.

This review of the various things in Nature, as we call it, and in art may show that the aim of the Italian Masters and other designers has been a quest of beauty in all its forms. It is a quest for perfection in purpose and in result. And it is not a pursuit of any theoretical aestheticism, but a practical endeavour seeking to satisfy a practical need. This aim and need involves the prosaic details of thought developed in work. But it also requires not only the application of ideals and imaginative power in that work, but also the pursuit of a definite purpose well understood and to be embodied in clear results by design.



# The Church of the Holy Sepulchre, Jerusalem

BY SIDNEY TOY [F.]



The Church of the Holy Sepulchre, Jerusalem, was first built about A.D. 336 after the reputed finding of the true cross, near the site of the sepulchre, by St. Helena, mother of Constantine the Great. Constantine built two churches: a large rotunda, over the Sepulchre itself; and a basilican church, over the spot where the cross was discovered. The latter stood to the east of the rotunda and had its altar and apse on the west side, facing towards the Sepulchre. Calvary was on the south side of an open court between the two churches. Before building the rotunda the soil around the Sepulchre was removed and the shrine, encased in masonry, stood exposed in the centre of the pavement of the church. The rotunda was enclosed by an open colonnade and ambulatory, and was probably covered by a timber dome. Portions of the outer wall of this building still remain.

Both churches were destroyed by the Persians in 614. But on the defeat of the Persian army shortly afterwards they were rebuilt, much in the same manner as before but that a choir with semicircular apse was formed on the east side of the rotunda, and three smaller apses were projected out from the wall of the ambulatory. In 1009, by order of the Fatimite Caliph Hakim, they were again destroyed, and the basilica was never rebuilt. A restoration of the rotunda, however, was undertaken in 1048, largely from funds supplied

by the Byzantine Emperor Constantine Monomachus. But following the conquest by the Crusaders and the establishment of the Latin kingdom of Jerusalem, the buildings became a priory of the order of Augustine Canons, and extensive works were undertaken. A choir with transepts and eastern apse was built immediately to the east of the rotunda and a wide and lofty arch was opened out between the two buildings so that the rotunda became the nave of a cruciform church. One dome stood over the rotunda and another over the crossing of the choir and transepts. A square bell-tower was built over a chapel on the west of the south doorway. This church embraced all three sacred sites: the Holy Sepulchre, in the nave; Calvary, to the south of the choir; and the subterranean chapel of the Invention of the Cross, which was entered from the ambulatory of the choir. The church was dedicated in 1145 and remained substantially as then built until its destruction by fire in 1808. It is this church, and not the existing building, which is represented by the model photographed above and is present on view in the Institute Library by the kindness of Sir Charles Trevelyan and through the good offices of Sir Banister Fletcher (President). In 1808 a great fire destroyed the rotunda and damaged very considerably other parts of the church. A crude restoration, completed in 1810, left the church in its present sombre and repellent condition. Solid piers



were used throughout and the interior otherwise blocked by solid walls of masonry. The cupola over the rotunda lasted about 50 years, and was replaced by the present iron structure in 1859.

The model is about 1 foot 5 inches long by 1 foot 8 inches wide, and is richly inlaid. It is so constructed that the coverings of the rotunda, the crossing, and the transepts can be removed so that the interior may be inspected. Other parts are also movable. The truncated cone over the rotunda was constructed

of timber, but at what period this was built it is difficult to determine. A drawing, dating about 1436, among the Egerton MS. in the British Museum, shows a drum surmounted by a dome. Two other drawings, one by Bernard de Breitenbach, dating from the end of the fifteenth century, and another among the illustrations to Viaggio, 1586, both indicate hemispherical domes over the rotunda. It would appear that each covering in succession was left open at the crown.

## Allied Societies

### ESSEX, CAMBRIDGE AND HERTS SOCIETY OF ARCHITECTS.

At the third annual meeting of the West Essex Chapter of the Essex, Cambs and Herts Society of Architects, held at the Architectural Association's Institute, Bedford Square, on Thursday, 3 April, Mr. A. C. Russell in the chair, the outgoing officers were thanked and the following elected for the ensuing year—Chairman, S. Phillips Dales\* [F.]; vice-chairman, R. L. Garbe, A.R.A.; treasurer, T. H. B. Scott\* [L.]; hon. secretary, A. C. Russell\* [L.]; executive, Messrs. Shiner [A.], Crowe [A.], Fincham [A.], Lewis\* [A.], J. E. Hammond\* [S.], Foster [F.], Thomerson† [L., F.S.I.], Smithers [F.]. The last two are co-opted members and auditors.

Arising from the question of the new conditions obtaining as from 1 April with respect to Public Work, Messrs. Dales, Evans and Lewis were appointed a deputation to wait upon the Essex County Council and report to the Executive for further action.

As to the need for an Art and Crafts School with joinery and smiths' shops at Romford, Messrs. Dales and Russell were asked to interview the County Education Committee and to report to the Executive. Upon the imminence of the municipal elections, it was resolved that, where councillors had taken a conspicuous lead in matters appertaining to improved amenities in acquiring open spaces or improving housing conditions, the member in any particular district be empowered to write to his local Press tendering the thanks of the Chapter for the councillor's past work.

The forthcoming Headmasters Conference and the invitation to provide a platform in the interests of Architectural Education in higher grade schools was discussed, and the Executive empowered to make all arrangements for this and the summer programmes, Sir Charles Nicholson being suggested as one speaker.

The co-operation of the Colchester Chapter was welcomed for a summer event in London and arrangements are to be made.

A request from the Counties Society for the election of a member to serve on a Salaried Members' Committee was referred back for further particulars.

The suggestion that a propaganda Committee be formed for each of the three counties in the Society was recommended.

The offer of Mr. W. Evans [L.] to give the chairman's jewel, which has been designed by Mr. R. L. Garbe, A.R.A., was received with acclamation and accepted.

### THE SOUTH WALES INSTITUTE OF ARCHITECTS.

Under the auspices of the South Wales Institute of Architects (Central Branch) and the Institute of Builders (South Wales Branch) a lecture was given on Thursday, 3 April 1930,

\* Representatives to County Society.

† Representative to Allied Society's Conference.

at the Engineers' Institute, Cardiff, by C. Ernest Elcock, Esq., F.R.I.B.A., who took as the subject of his lecture "Some Points About Modern Hospital Planning."

The lecturer gave an account of recent developments in the planning and construction of a large variety of remedial institutions, including mental hospitals, buildings for the treatment of medical and surgical cases, cottage hospitals and the like.

Many of these schemes were on a large scale, and, particularly in the case of extensive out-patient departments, elaborate in plan. Mr. Elcock showed how recent developments in medical science have given the architect many new problems to solve, and he indicated the direction in which the old type of hospital ward can be modified with advantage. As a result of treating the forms which are arising out of the new requirements in a simple rational manner, many of our new hospitals are reaching a higher standard aesthetically than did the earlier buildings of this class.

A vote of thanks to the lecturer was proposed by Mr. Emil Gough, president of the South Wales Branch of the Association of Building Trade Employees, seconded by Mr. W. S. Purchon, M.A., F.R.I.B.A., and carried with acclamation.

### COUNCIL FOR THE PRESERVATION OF RURAL ENGLAND.

The annual meeting of the Council for the Preservation of Rural England was held at the Royal Institute of British Architects, Lord Crawford and Balcarres, the president, was in the chair.

The report stated that the outstanding feature of the third year during which the C.P.R.E. had been in existence was the increase of public interest in rural amenities, culminating in the presentation to Parliament of Sir Edward Hilton Young's Rural Amenities Bill and the passing of its second reading without a division. The natural result of this widespread public interest had been a desire to establish some sort of representative organisation in every county in England. This was a policy which the C.P.R.E. had encouraged from its inception, for it was essential that the majority of local problems should be solved on the spot, the council being ready to give its full weight in support of major issues and to carry out the research work and provide the machinery for local purposes. The council looked forward to the time when every country town and district would have its local preservation committee.

The other outstanding event of the year was the gift by Mr. Boies Penrose of £10,000 jointly to the C.P.R.E. and C.P.R.W. This was conditional on a similar sum being raised by subscription, and there was no time limit. The subscription lists were still open. The Carnegie Trustees had decided to provide a sum of £10,000 for the councils of England, Scotland, and Wales, in order to enable them to press forward with certain aspects of their work. The sum covered a period of five years from January 1, 1930.

Lord Crawford said it was clear that the public were awakening to the dangers by which they were confronted. It was



equally clear that the instruments at their disposal for meeting those dangers were seriously defective, and the future of a beautiful and undefiled England must rest in the hands of those who sympathised with them, and were prepared to give support to their growing movement. They hoped that in the course of time convenient sections of the whole countryside would each contain an honorary advisory panel of trained men, engaged in public life to whom people could turn for technical advice on problems that were arising. That system of panels was receiving the official support of the Ministry of Health, and though at present the machine was quite inadequate for their purposes, there were the elements of a valuable instrument. If they could develop this educational respect of their work, he was confident that they would be well remunerated.

Sir Henry Newbolt, in moving the adoption of the report, said it was a record of very valuable work extremely well done. He emphasised the importance of the aims of the Society being widely known. With a population of 40 millions or more, they could not preserve rural England as it was with a population of eight millions. It was not the England of the past that they were going to hand down to posterity, but a new England that they had to make. Future generations should be able to say that, though after the Great War the people had to build millions of houses, they built them in a charming and picturesque way.

Mr. Clough Williams-Ellis, in seconding the adoption of the report, said that in the past year they had done something for England, but they had not done enough. They wanted power to do, as well as to undo. That necessary power could only come to them through adequate recognition of their efforts by the Government through a really comprehensive and far-reaching General Amenities Bill. If the law would only endorse ordinarily enlightened public opinion, the fight for rural England would certainly be won. If it did not he foresaw defeat. The Minister of Health had promised a Government measure next year. Let them make it clear to him that they looked for something really effective, and do all in their power to arouse such a demand for it throughout the country that the Government would realise that the situation was indeed critical and deserving its most earnest and immediate attention.

The report was adopted, and the following were added to the executive committee:—Sir Arnold Wilson, Major-General Sir Fabian Ware, Mr. Boies Penrose, Mr. Frank Pick, Mr. H. H. Peach, and Mr. Kenneth Spence.

On the motion of Mr. E. Guy Dawher, the following additions were made to the list of constituent bodies:—The Oxford Preservation Trust, the Cambridge Preservation Society, the Pure Rivers Society, and the Design and Industries Association.

#### TOWN PLANNING IN GERMANY.

A member of the Executive Committee of the Commons, Open Spaces and Footpaths Preservation Society submits the following itinerary in Germany for four weeks from the 20 June in the hope that some architect would care to accompany him. The object of the trip is to study Town Planning.

Leave Southampton for Hamburg, arriving the second day; stop in Hamburg third, fourth and fifth days; sixth day leave Hamburg for Hanover, stopping there only one day; then to Berlin, arriving the eighth day and leaving the ninth day; ninth day arrive at Dresden; leave Dresden the eleventh day; from Dresden to Prague, leaving Prague the fourteenth day; arrive in Vienna same day and stop there fourteenth, fifteenth and sixteenth days; leave Vienna seventeenth day and arrive at Budapest the same day; leave Budapest the nineteenth day; thence to Salzburg, Munich, Nuremberg, Frankfurt, Mainz, Coblenz, Cologne. From Vienna to Budapest will be by steamer, and from Mainz to Coblenz will also be by steamer on the Rhine. Thence from Cologne to Ostend, Dover, and London, arriving the twentieth day.

For particulars write to the Secretary, Commons, Open Spaces and Footpaths Preservation Society, 71 Eccleston Square, Westminster, S.W.1.

#### SIR EDWIN COOPER, A.R.A.

Sir Edwin Cooper has been elected an Associate of the Royal Academy. Chief among the important buildings Sir Edwin has added to London is the new home of Lloyd's in Leadenhall Street, the Royal Mail building, also in Leadenhall Street, the offices of the Port of London Authority, Tower Hill, the Star and Garter War Memorial at Richmond, the extension of Gray's Inn Library, and the Bio-Chemical Schools at Cambridge.

#### A COMMENCEMENT OF MUSEUM HOURS EXTENSION.

Members of the R.I.B.A. will be gratified by the announcement that the "Victoria and Albert Museum" is to be kept open until 10 p.m. on Thursdays, Saturdays and Bank Holidays and the "Bethnal Green Museum" until 10 p.m. on Mondays and Thursdays.

The efforts of our Council in the recent past to secure such concessions in the interest of architects and the many craftsmen of the building industries have, doubtless, had their influence. The boon should be a material one, especially during long winter evenings, to those resident near London, and a precursor of further extensions. F.H.

#### INTERNATIONAL EXHIBITION OF HYGIENE.

On the occasion of the International Exhibition of Hygiene to be held this summer at Dresden, the German Zentral Institut für Erziehung und Unterricht has arranged a special course of instruction on "Hygiene and School," from 5 to 18 June, at Dresden.

The programme includes visits to some of the most modern schools in Germany, paying special attention to the question of architecture and hygiene.

Full information may be obtained from the Director, Anglo-German Academic Bureau, 58 Gordon Square, W.C.1.

#### NEW BUILDING MATERIALS AND PREPARATIONS.

The Science Standing Committee wish to draw attention to the fact that information in the records of the Building Research Station, Garston, Watford, is freely available to any member of the architectural profession, and suggest that architects would be well advised, when considering the use of new materials and preparations of which they have had no previous experience, to apply to the Director for any information he can impart regarding their properties and application.

#### R.I.B.A. INTERMEDIATE EXAMINATION.

The forthcoming Intermediate Examination will be held from 30 May to 5 June 1930.

The last day for receiving applications to sit for the Examination is 30 April.

## Notices

#### THE FOURTEENTH GENERAL MEETING.

The Fourteenth General Meeting (Ordinary) of the Session 1929-30 will be held on Monday, 26 May 1930, at 8 p.m., for the following purposes:—

To read the Minutes of the Annual General Meeting held on 12 May 1930; formally to admit members attending for the first time since their election.

To read the following paper: "Recent Excavations at Ur," by Mr. C. Leonard Woolley, M.A., Hon. A.R.I.B.A.



### THE R.I.B.A. ANNUAL DINNER.

The R.I.B.A. Annual Dinner will take place on Thursday, 15 May 1930, at 6.45 for 7.15 p.m., in the Guildhall, E.C. (by kind permission of the City Corporation).

The dinner will give those present a unique opportunity of seeing the Art Gallery, the Library and the Council Chamber at the Guildhall, as these will all be open to the guests. It is intended that the programme of speeches is to end at an early hour so as to enable those present to see these places and to have plenty of time to meet those of their friends who may be present at the dinner. Separate tables accommodating either six or eight persons will be provided so that members and their guests may be grouped together.

All members of the R.I.B.A. and of the Allied Societies are cordially invited to make early application to the Secretary R.I.B.A. for tickets for themselves and their guests. The price of tickets is £1 15s. each (inclusive of wines, etc.).

For those members who are unable to attend the dinner but who may wish to have an opportunity of hearing the speeches, a limited number of seats will be reserved in the gallery of the Guildhall. Each member applying for seats in the gallery will receive not more than two tickets, admitting either ladies or gentlemen, which will be allotted in order of application. Members who take advantage of this facility will also be able to visit the Art Gallery, Library and Council Chamber at the conclusion of the dinner.

Full particulars can be obtained on application to the Secretary R.I.B.A.

### BRITISH ARCHITECTS' CONFERENCE, NORWICH.

18-21 June 1930.

All members and students of the R.I.B.A. and all members and students of the Allied Societies and of the Architectural Association are cordially invited to attend the Conference (see full particulars enclosed with this issue of the JOURNAL). It will greatly facilitate the arrangements if members who propose attending will fill up the fly-sheet attached to the programme and return it to the Secretary R.I.B.A., 9 Conduit Street, W.1, not later than 7 June.

Members of the R.I.B.A. and the Allied Societies who are officials of local authorities are asked to notify the Secretary R.I.B.A. if they would like formal invitations to be sent to such authorities to appoint delegates to the Conference.

### PAMPHLET ON PROFESSIONAL CONDUCT AND PRACTICE.

At the suggestion of the Practice Standing Committee, the Council of the R.I.B.A. have had reprinted and bound together in pamphlet form the following papers on Professional Conduct and Practice, by Mr. W. E. Watson, F.R.I.B.A., Barrister-at-Law, that have appeared in recent years in the R.I.B.A. JOURNAL :-

- (1) Easements (reprinted from R.I.B.A. JOURNAL of 17 September 1927).

- (2) Handbook of Architectural Practice (reprinted from R.I.B.A. JOURNAL of 28 January 1928).

- (3) Party Walls (reprinted from R.I.B.A. JOURNAL of 24 November 1928).

- (4) Contract (reprinted from R.I.B.A. JOURNAL of 12 January 1929).

- (5) Specification (reprinted from R.I.B.A. JOURNAL of 9 February 1929).

While the papers are not exhaustive treatises on the subjects, they are based on the standard works which are recommended for student courses, amplified by incidents arising in the Courts of Justice.

The Council consider that the papers will be found helpful to the inexperienced architect and to others in dealing with those questions which present difficulty in everyday practice, and are specially recommended for perusal by students.

A general index has been prepared by Mr. H. C. Hughes, M.A. (Cantab) (F.), also an index of cases.

Copies of the pamphlet can be obtained on application to the Secretary R.I.B.A., 9 Conduit Street, W.1, price 2s. 6d.

### WORKERS IN THE BUILDING TRADES.

Arising out of the lectures on architecture to workers in the building trades arranged by the Board of Architectural Education, the Council, on the recommendation of the Board, wish to draw the attention of all practising architects to the following points which were brought out during the discussions which took place :-

1. That more interest would be taken by the craftsmen in the buildings upon which they were engaged if models of the proposed buildings were placed upon the works for their inspection while the buildings were in progress, and that complete plans and drawings might be available in order that the men could see how the work they were doing fitted into the whole structure.

2. That craftsmen should be given more liberty to use their discretion in the execution of their particular crafts.

3. That the architect and craftsman should get into closer personal touch with each other.

4. That architects might take building apprentices over their works while in progress and at completion.

### PROPOSED GUILDFORD CATHEDRAL.

Mr. Walter Tapper, A.R.A., F.S.A., Past-President R.I.B.A., has been nominated by the President as Assessor for the proposed Guildford Cathedral Competition.

### MEMBERS' TOUR TO THE UNITED STATES AND CANADA.

In view of the success which attended the visit to the United States and Canada of a party of members of the R.I.B.A. last year, and as many members who were unable to avail themselves of that opportunity expressed a desire to undertake such a trip on a future occasion, it has been decided to organise a further party this year.

The numerous advantages to be gained by undertaking a visit to the United States and Canada from an architectural point of view will be obvious, particularly when



the visit is made in company with fellow members of the Institute.

The suggested tour will include New York, Philadelphia, Washington, Detroit, Niagara Falls, Toronto, Ottawa and Montreal, and notes regarding the places of interest from an architectural standpoint, compiled by Mr. Percy E. Thomas, O.B.E., F.R.I.B.A., the leader of last year's party, will be available for members.

The duration of the trip will be approximately one month, and the cost, including cabin class accommodation on the Atlantic steamers, hotel accommodation in the United States and Canada, rail fares, etc., will be about £80. This amount is exclusive of meals ashore, gratuities, transfer of passengers and baggage between stations, steamers, hotels, etc., and sight-seeing trips.

The party will travel from Liverpool for New York by the Cunard Liner *Samaria* on 5 July, returning by the *Ascania* from Montreal to Plymouth and London on 25 July.

Relatives and friends of members will be welcomed.

Members interested are requested to apply to Mr. H. T. Leese, The Cunard Steamship Company, Ltd., 26-27, Cockspur Street, London, S.W.1, who will be pleased to forward a complete itinerary, etc. on request.

#### OVERSEAS APPOINTMENTS.

Members contemplating applying for appointments overseas are recommended to communicate with the Secretary R.I.B.A., who will supply them with any available information respecting conditions of employment, cost of living, climatic conditions, etc.

WILLIAM H. HAMLYN,

Hon. Sec. R.I.B.A., Salaried Members' Committee.

#### ELECTION OF MEMBERS, 1 DECEMBER, 1930.

Associates who are eligible and desirous of transferring to the Fellowship are reminded that if they wish to take advantage of the election to take place on 1 December 1930 they should send the necessary nomination forms to the Secretary R.I.B.A. not later than Saturday, 27 September 1930.

#### LICENTIATES AND THE FELLOWSHIP.

The attention of Licentiates is called to the provisions of Section IV, Clause 4 (b) and (c) of the Supplemental Charter of 1925. Licentiates who are eligible and desirous of transferring to the Fellowship can obtain full particulars on application to the Secretary R.I.B.A., stating the clause under which they propose to apply for nomination.

## Competitions

#### BANGOR (CO. DOWN) LAY-OUT OF SEA-FRONT.

The Bangor (Co. Down) Borough Council invite Architects and Town Planners to submit, in open competition, designs for the lay-out of the sea-front in the Borough.

Assessor: Professor Patrick Abercrombie, M.A. [F.].

Premiums: £150 and £50.

Last day for receiving designs, 1 September 1930.

Conditions of the competition may be obtained on

application to Mr. J. Milliken, Town Clerk, Borough Council Offices, Bangor, Co. Down. Deposit £1 1s. [Conditions have not yet been received.]

#### CHELMSFORD: PUBLIC LIBRARY AND MUSEUM.

The Chelmsford Corporation invite architects to submit, in open competition, designs for a New Public Library and Museum at a cost of £25,000.

Assessor: Mr. H. V. Lanchester [F.].

Last day for receiving designs, 14 June 1930.

Conditions of the competition may be obtained on application to Mr. G. E. Barford, Town Clerk, Town Clerk's Office, Chelmsford. Deposit £1 1s.

#### ENNISKILLEN: NEW MASONIC HALL.

The Masonic body of Enniskillen invite architects practising in Ireland, to submit, in competition, designs for a new Masonic Hall to be erected in Enniskillen.

Assessor: Mr. John Seeds [F.].

Premium: £50.

Last day for receiving designs, 30 May 1930.

Conditions of the competition may be obtained on application to Mr. R. W. Smith, Hon. Secretary, Building Committee, Masonic Hall, Enniskillen. Deposit £1 1s.

#### KINGSTON-ON-THAMES: PUBLIC BATHS.

The Kingston-on-Thames Corporation invite architects to submit in open competition, designs for the erection of public baths, with the use of one as a public hall.

Assessor: Mr. J. Ernest Franck [F.].

Premiums: £300, £200, £100 and £50.

Last day for receiving designs, 14 June 1930.

Conditions of the competition may be obtained on application to Mr. A. W. Forsdike, Town Clerk, Town Clerk's Office, Kingston-on-Thames. Deposit £1 1s.

#### LIVERPOOL: PROPOSED PIER HEAD IMPROVEMENTS.

The Liverpool City Council propose to offer premiums of 1,000 guineas and 500 guineas in connection with a competition for the improvement of the amenities of the Pier Head. [Conditions are not yet available.]

#### LUTON: TOWN HALL.

The Town Council of Luton invite architects to submit, in open competition, designs for a new Town Hall and Municipal Buildings, at a cost of £250,000.

Assessor: Sir A. Brunswell Thomas [F.].

Premiums: £500, £300, £200, and £100.

Last day for receiving designs, 31 July 1930.

Conditions of the competition may be obtained on application to Mr. W. Smith, Town Clerk, 2 Upper George Street, Luton. Deposit £2 2s.

#### WEST HUMBERSTONE: LIBRARY.

The Leicester Corporation propose to invite local architects to submit, in competition, designs for a Library, to be erected at West Humberstone.

Assessor: Mr. Hugh Gold [F.].

Premiums: £75, £50 and £25.

[Conditions are not yet available.]



**WORTHING: MUNICIPAL BUILDINGS.**

The Corporation of Worthing invite architects to submit, in open competition, designs for new Municipal Buildings, to be erected in Chapel Road, Worthing.

Assessor: Mr. Henry V. Ashley, V.-P.R.I.B.A.

Premiums: £350, £250, £150 and £50.

Last day for receiving designs, 5 July 1930.

Conditions of the competition may be obtained on application to Mr. J. Kennedy Allerton, Town Clerk, Worthing. Deposit £1 1s.

## Members' Column

### CHANGE OF ADDRESS.

Mrs. ROBERT AVKINSON have removed from 36 Bedford Square, W.C.1. Their new address is 126 Wigmore Street, W.1. Telephone No. 7. Welbeck 4116.

### PRACTICE WANTED.

Member wishes to purchase an old-established practice, West of England or South Coast preferred, or would entertain a partnership in a firm of standing.—Apply Box 2640, c/o The Secretary R.I.B.A., 9 Conduit Street, W.1.

### PARTNERSHIP OR PRACTICE WANTED.

Young Architect, taking final A.R.I.B.A. next year, wishes to enter office, preferably in London, with view to partnership or purchase of practice. Capital available.—Apply Box 2540, c/o The Secretary R.I.B.A., 9 Conduit Street, W.1.

### AMALGAMATION WANTED.

F.R.I.B.A., with new but promising practice in Birmingham, is desirous of amalgamating with established architect or firm in the City as Junior Partner. Wide experience in domestic, public and industrial work, also surveying and civil engineering. Highest credentials.—Apply Box 1740, c/o The Secretary R.I.B.A., 9 Conduit Street, W.1.

### APPOINTMENT VACANT.

Applications are invited for the post of Deputy Architect and Surveyor on a large London Estate. Salary £700 per annum. Highest qualifications and professional and administrative abilities essential. State age, details of training, experience to Box 6530, c/o The Secretary R.I.B.A., 9 Conduit Street, W.1.

### OFFICE TO LET.

FURNISHED offices to let in Portman Square district, London. Lately occupied by an architect in continuous practice there for 35 years. Offices consist of three rooms ground floor, two rooms in exceptionally well-lighted basement, with lavatory, sink, room and two w.c.'s. Completely fitted with all necessary desks and furniture of every kind; suitable for large staff. Architect tenant preferred.—Apply Box 2340, c/o The Secretary R.I.B.A., 9 Conduit Street, W.1.

### CLERK OF WORKS.

I SHOULD be grateful to any Member of the Institute who would recommend a thoroughly reliable Clerk of Works for Institutional work in the provinces likely to mature at the end of June and to last about a year. Reply Box 4630, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

### OFFICE ACCOMMODATION WANTED.

FELLOW of the Institute desires to meet another Member, preferably young, with a view to sharing office accommodation and running expenses.—Apply Box 2530, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

## Minutes XIV

### SESSION 1929-1930.

At the twelfth General Meeting (Ordinary) of the Session, 1929-1930, held on Monday, 28 April 1930, at 8 p.m.

Sir Banister Fletcher, F.S.A., President, in the Chair.

The attendance book was signed by 20 Fellows (including 4 members of Council), 15 Associates, 2 Licentiates (including 1 Member of Council), 1 Hon. Associate and a large number of visitors.

The Minutes of the Ordinary and Business General Meetings held on 7 April 1930, having been published in the JOURNAL, were taken as read, confirmed, and signed as correct.

The Hon. Secretary announced the decease of:—

Frederic Foster, transferred to the Licentiate Class in 1925;

Walter West Mabson, elected Licentiate 1911;

and it was Resolved that the regrets of the Institute for their loss be entered on the Minutes, and that a message of sympathy and condolence be conveyed to their relatives.

The following members attending for the first time since their election were formally admitted by the President:—

Mr. Cecil G. Butler [F.].

Mr. R. Wynn Owen [F.].

The President having referred to the recent election of Sir Edwin Cooper as an Associate of the Royal Academy, it was Resolved by acclamation that hearty congratulations be conveyed to Sir Edwin on the honour that had been conferred upon him.

Professor A. E. Richardson, F.S.A. [F.], having read a Paper on "Architects' Drawings of 1800-1850," a discussion ensued, and on the motion of Mr. Charles Aitken, Director of the National Gallery, Millbank, seconded by Professor Beresford Pite, Hon. M.A. Cantab. [F.], a vote of thanks was passed to Professor Richardson by acclamation and was briefly responded to.

The proceedings closed at 9.25 p.m.

## ARCHITECTS' BENEVOLENT SOCIETY

(Insurance Department).

### HOUSE PURCHASE SCHEME

(for property in Great Britain only).

The Society is able, through the services of a leading Assurance Office, to assist an Architect (or his client) in securing the capital for the purchase of a house for his own occupation, on the following terms:—

### AMOUNT OF LOAN.

Property value exceeding £666, but not exceeding £2,500, 75 per cent. of the value.

Property value exceeding £2,500, but not exceeding £4,500, 66½ per cent. of the value.

The value of the property is that certified by the Surveyor employed by the Office.

### RATE OF INTEREST

In respect of loans not exceeding £2,000 5½ per cent. gross.

" " in excess of " 5½ " "

### REPAYMENT.

By means of an Endowment Assurance which discharges the loan at the end of 15 or 20 years, or at the earlier death of the borrower.

### SPECIAL CONCESSION TO ARCHITECTS.

In the case of houses in course of erection, it has been arranged that, provided the Plan and Specification have been approved by the Surveyor acting for the Office, and the amount of the loan agreed upon, and subject to the house being completed in accordance therewith, ONE HALF of the loan will be advanced on a certificate from the Office's Surveyor that the walls of the house are erected and the roof on and covered in.

NOTE.—In 1928, over £20,000 was loaned to architects under this scheme, and as a result over £100 was handed to the Benevolent Fund.

If a quotation is required, kindly send details of your age next birthday, approximate value of house and its exact situation, to the Secretary Architects' Benevolent Society, 9 Conduit Street, London, W.1.

### R.I.B.A. JOURNAL.

DATES OF PUBLICATION.—1930.—24 May; 7, 21 June; 12 July; 9 August; 20 September; 18 October.



# Journal of the Royal Institute of British Architects

VOL. XXXVII. No. 14

THIRD SERIES

24 MAY 1930

## Contents for 24 May 1930

	Page
RAILWAY BRIDGE OVER REGENT'S CANAL. By J. C. Bourne	495
ARCHITECTS' DRAWINGS OF 1800-1851. By Professor A. E. Richardson, F.S.A. [F.]	495
DISCUSSION:—	
MR. CHARLES ATKEN, DIRECTOR OF NATIONAL GALLERY, MILLBANK.	511
PROFESSOR HERSCFORD PITE [F.]	511
MR. J. L. HODGSON	512
MR. JASPER SALWY [A.]	512
MR. W. T. LEXINGTON [F.]	513
THE ARCHITECT AND THE ENGINEER. By Sidney Tay, F.S.A. [F.]	514
REVIEW:—	
THE STUDIO YEAR BOOK OF DECORATIVE ART. By Arnold Silcock [P.]	515
CORRESPONDENCE:—	
STANDARDS OF ADEQUACY OF DAYLIGHT ILLUMINATION AND REASONABLE FENESTRATION. By John Swarbrick [F.]	515
SALARIED MEMBERS COMMITTEE. By H. B. Creswell [F.]	516
REMARKS ON LIGHT. By Percy J. Waldram [L.]	516
THE ARCHITECTS' JOURNAL AND ARCHITECTURAL ASSISTANTS. By William H. Hamlyn [A.]	517
STONE BALLS ON GATEPOSTS. By Percival M. Fraser [F.]	517
BAD TASTE IN CHURCHES. By the Bishop of Southwark	517
PRIMROSE COLOURED DISTEMPLE. By Alan G. Munby [F.]	517
WILLIAM JOHN LOCKE (HONORARY ASSOCIATE), SECRETARY R.I.B.A. 1898-1908. By Sir John W. Simpson, K.B.E., P.P.R.I.B.A.	518
ISOMETRIC DRAWING OF ST. PAUL'S CATHEDRAL	519
DISCUSSION ON ANNUAL REPORT	520
ALLIED SOCIETIES:—	
BERKS, BUCKS AND OXON ARCHITECTURAL ASSOCIATION	521
HAMPSHIRE AND ISLE OF WIGHT ARCHITECTURAL ASSOCIATION	521
LEICESTER AND LEICESTERSHIRE SOCIETY OF ARCHITECTS	524
SHEFFIELD, SOUTH YORKSHIRE AND DISTRICT SOCIETY OF ARCHITECTS	524
WEST YORKSHIRE SOCIETY OF ARCHITECTS	525
YORK AND EAST YORKSHIRE ARCHITECTURAL SOCIETY	524
OBITUARY:—	
DR. ALBERT VON LE COQ [Hon. Corr. Member]	525
JOHN BRYAN NIBBET [L.]	525
ARCHITECTS' BENEVOLENT SOCIETY: ANNUAL GENERAL MEETING	526
LEGAL: WILLCOCKS AND BARNES v. THE PAIGNTON CO-OPERATIVE SOCIETY, LTD.	527
NOTES FROM MINUTES OF COUNCIL	529
PROBATIONERS	531
STUDENTS R.I.B.A.	531
ATTENDANCES AT COUNCIL AND STANDING COMMITTEE MEETINGS	531
THE ANNUAL ELECTIONS	532
NOTICES	533
COMPETITIONS	535
MEMBERS' COLUMN	536
MINUTES XV	536
A.B.S. SCHEME OF INSURANCE	536



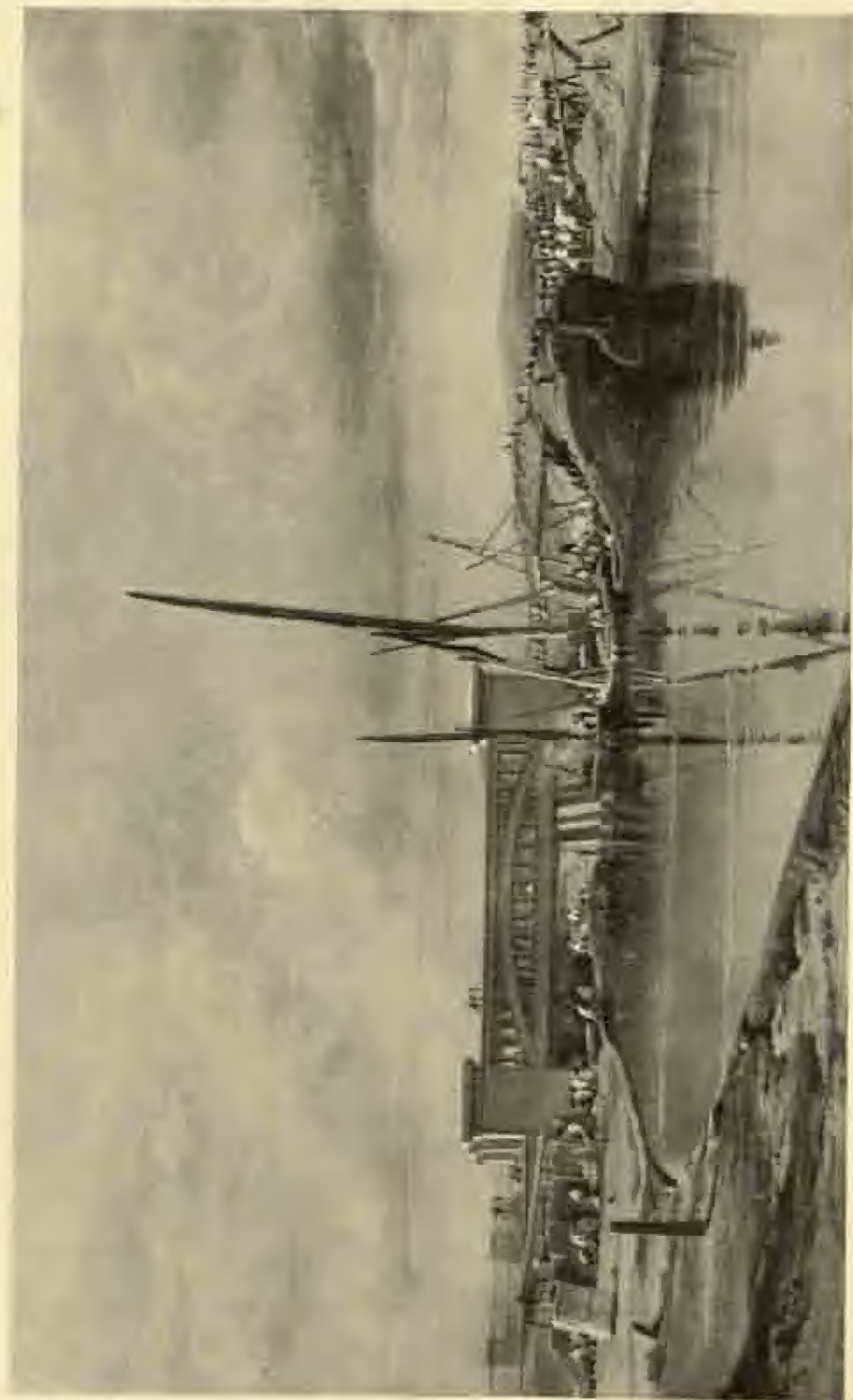


FIG. 4.—RAILWAY BRIDGE OVER REGENT'S CANAL. By J. C. Bourne  
Lent by the London Midland and Scottish Railway





LONDON AND BIRMINGHAM RAILWAY; ENTRANCE TO EUSTON STATION. By T. Allom. Philip Hardwick, Architect  
R.I.B.A. Collection

## Architects' Drawings of 1800-1851

BY PROFESSOR A. E. RICHARDSON, F.S.A. [F.].

(A Paper read before the Royal Institute of British Architects on Monday, 28 April 1930.)

I WILL endeavour as far as possible to treat this subject in a non-controversial spirit. The drawings on exhibition represent, in the main, part of the splendid collection of this Institute. In addition there are the perspective reconstructions of old Rome by Professor C. R. Cockerell, loaned by the Council of the Royal Academy. It was the desire of the Committee responsible for this exhibition to have obtained the loan of some of the drawings belonging to the Soane Museum, but unfortunately the request could not be granted. We were more fortunate in obtaining the superb drawings by John C. Bourne from the Directors of the London Midland and Scottish Railway. Among the many acknowledgments due for the loan of perspective drawings I will include the names of Professor Hughes and Mr. Oldrid Scott. The exhibition can be summed up very briefly—strong on the classic side, not fully representative on the Gothic, supreme in pictorial representation.

Your first impression will be that these drawings

are chiefly distinguished by restraint. Next to that you will agree as to their individual merit, and their value as historical statements. To-night we are in contact with evidences associated with the youth of this Institute, and with a period when draughtsmanship and architecture were synonymous terms.

It has been said that art, to attain the zenith of perfection, needs the collective support of the nation. But there must be individual genius to deserve encouragement. I do not claim superlative qualities for all the drawings. There are some placed in the outer corridor by the critical committee which are ordinary. But I can say with the fullest confidence that the best will never be equalled. Regarded broadly the period was not in itself propitious for art, the artists themselves complained of the chaos and Babylonian confusion. Democracy was already powerful, the old traditions formed so many obstacles, the forces of industry aimed a deadly blow at cultural leisure. We have to turn to the second half of the eighteenth



century, the period so engaging and so diabolically clever, in order to apprehend the meaning of architectural draughtsmanship during the first half of the nineteenth century. At this period the population was comparatively small, industry just balanced agriculture, the middle classes were imitating their betters. It was a time receptive of classicalities from France, Italy and Greece. We view this period from a comfortable vantage point. The scenes pass before us as in a timed gallantry show. In the cities, towns and villages the mediæval skeleton could be seen beneath the diaphanous Latin cloak. We recall old London, the tortuous streets, the curious signs, the bow-fronted shops, the busy transport centres of Southwark and Smithfield. There is the theatre in Drury Lane, the new clubs of St. James's, the sedan chairs, postchaises and heavy wagons. There are the watchmen with their rattles and lamthorns, the red-waistcoated Bow Street runners, the hangings at Newgate and Tyburn, the flagellations in and out of Bridewell. Beyond London stretched the roads, the age-old veins along which circulated some small part of the life-blood of the nation. Hogarth and Rowlandson have left precise information on these matters. When we delve into the most fascinating literature that has ever been written we awaken to the posturing and the brutality. But the art of architecture flourished. The connoisseur criticised the growing streets, the draughtsmen found scope to illustrate the scenery of London and Westminster. George Morland painted the unspoiled countryside and Joseph Farington explored the scenery of mountains, towns and rivers. Thanks to the presence of so many engravers of French extraction, the art of the limner was regarded as the province of the foreigner. It was thought that style in art was best when imported. The picture gallery for the man in the street was the print shop. In the meantime a new coterie of native artists was being recognised, and it was not long before the print sellers, Sayer, Bowles and Carrington, and Alderman Boydell, added views of buildings to their ordinary stock. Another factor was the growing custom of bringing back perspective views of foreign buildings. Earlier in the century the Society of Dilettanti had advocated foreign travel. For a long time both patrons and architects had been in touch with foreign schools and artists. As a result architectural draughtsmanship began to improve. The classical

bias was well catered for. On the Gothic side the woodcuts in the *Gentlemen's Magazine* led eventually to the revived taste for mediæval work. When George the Third came to the throne a very considerable body of engravers and topographical draughtsmen were in existence. Some of these men had visited Italy, others France. They had seen the perspective drawings of Bibiena and Pannini, some were familiar with the illustrations of old Rome and the outpourings of Piranesi. The principal inspiration, however, came from France, particularly from draughtsmen with the ability of Louis and Clérissseau. It is clear that events were shaping toward definite leadership. The desire for analytical training eventually led to the document known as the "Instrument," and the founding of the Royal Academy. Henceforth the vitality of English limning was to be strengthened. There was to be more geometry and greater accuracy in presentation.

Among the architects Sir William Chambers studied under Clérissseau and the Brothers Adam had recourse to the drawings of Andreas Coner and Antonio Zucchi. With the founding of the Academy schools and the appointment of accredited professors, students were in time sent to Rome. Meanwhile Stuart and Revett astonished the architects by publishing their researches at Athens. Some of the earliest essays in water colour were in preparation at the hands of the skilful Paul Sandby, and Canello found in the spires and the river of London inspiration equal to Venice. Another important factor which must not be overlooked is the elder Malton's treatise on perspective which appeared in 1774. Draughtsmen were now drawing with accuracy; they employed delicate lines and heightened their work with bistre washes. The majority of architects, it should be noticed were content to draw in elevation. Thomas Sandby was an exception; he it was who indulged his fancy for perspective views of interiors. The chief architectural draughtsman of the third quarter of the eighteenth century was Thomas Malton, whose first employment was to illustrate the chief buildings designed by Sir Robert Taylor. In my own collection there is a small pencil study by this draughtsman for the principal apartment at Heveningham. This drawing is interesting as a basis for the aquatint copies which ensued.

The next departure came when Thomas, son of the elder Malton, published his pictorial views





FIG. 1.—WEST FRONT OF ST. PAUL'S CATHEDRAL. By T. Malton.  
R.I.B.A. Collection.



FIG. 2.—POST OFFICE, DUBLIN. By Francis Johnston.  
R.I.B.A. Collection.



of London and Westminster, a work generously subscribed by the public, and followed later by views of Dublin. For these reasons the period, 1790-1800, can be regarded as the beginning of the fashion for architectural perspectives which has been continued to the present day. Among the later architects of the eighteenth century Soane was the first to realise the advantage of perspectives to illustrate his own work. He it was who had been advised by Sir William Chambers to study Piranesi, and he never forgot the advice. The collection of perspectives at his museum in Lincoln's Inn Fields is instructive. Returning to the drawings by the Maltons, we find them to be models of precision. The view point is invariably reasonable, the main building well placed and the surrounding scenery clearly shown. There are two representative drawings on view, the most striking being the west front of St. Paul's Cathedral (Fig. 1).

Malton teaches us to view the buildings with eighteenth century eyes. It would not be difficult to make complete reconstructions to scale from such evidences as he provides. These are architectural drawings, somewhat cold, but convincing as statements of concrete fact. The coloured aquatint of the Post Office, Dublin, made from Johnston's working drawings, belongs to the same category (Fig. 2). The drawing by Thomas Girtin of St. Martins-le-Grand, with St. Paul's in the distance, provides a marked contrast. This is frankly a pictorial view with the surging life of the streets as a foil.

The eighteenth century was about to end, but it was to shed its lustre upon the first quarter of the epoch to come. By the year 1800, London was expanding with feverish haste in a westerly direction. Scaffolding enshrouded the Bank of England, the speculative builders were carrying out the designs of architects acting for noble landowners. Vast acreages of brickwork gave formal value to fashionable streets of the first, second and third degree. While Rowlandson worked under the direction of Ackermann, Westall was preparing his views of country seats and middle-class villas. Brighton had become the chief watering place, and travellers by mail and stage speculated on the latest whims of roadside taste.

Two drawings in this exhibition are representative of the facility of architects of the time for perspective. Both these drawings show Westminster Abbey. They are the work of J. T.

Groves, architect and clerk of works to St. James's, Whitehall, and Westminster. The style of draughtsmanship and colouring suggest acquaintance with the work of Joseph Farington. It should be noted that this artist worked delicately and with care. Every detail was just pencilled in, and recourse to the mahogany paint box, supplied by Reeves and Inwood, was deferred to the last moment. These two drawings by Groves are of exceptional interest, not only as renderings of a group of Gothic buildings, but by reason of the application of slight colouring to a careful architectural perspective. At this time the Continent of Europe was closed to English travellers. The short lived Treaty of Amiens, 1802-3, had opened men's eyes to the scale of the buildings in Paris. Copies of Baldard's book were in demand and contemporary French taste was in process of being translated. When the struggle with Napoleon began again, English architects, who had the opportunity, journeyed by sea to Greece and further afield. Robert Smirke, the eldest son of the painter, was among the first. His perspective drawings of the Parthenon are now in the British Museum. There was now a passion for Greek art. Fuseli, the keeper of the Royal Academy Schools, never tired of shouting to the students "the Greeks vere Gods, the Greeks vere Gods!" In 1810, C. R. Cockerell, then a mere youth, left England to begin the tour which established his reputation. Previously in 1806 his father had sent him to study the chief architectural objects of interest in the West of England. From the first Cockerell displayed talent. The sketches he made with a light, sure touch include men, animals, and buildings. At Carmarthen, he sketched the gaol which had just been built by John Nash, and his critical eye noticed defects in the design. A contemporary of Cockerell's, Charles Barry, did not leave England until 1817, to proceed through France to Italy, Greece and Egypt. Barry was a fine pictorial draughtsman and he sketched incessantly. The beauty of his sketches was so apparent that many noted publishers were eager to secure rights of publication. So far I have indicated the classical side of the development of architectural draughtsmanship. I have endeavoured to show the affiliation that existed between architects and painters, the value of perspective and water colour.

Although architects were studying Roman and Italian buildings, the barometer of taste pointed



towards Greece. It is clear therefore that the draughtsmanship of the early nineteenth century assisted the Greek Revival in a way undreamt of by the pioneers. Other influences, however, were in action. The romantic movement was gaining ground together with an eclecticism that envisioned all antiquity from China to Peru. We have to turn for a brief space to the painters. Two names are prominent, Thomas Daniell, R.A., a painter of landscapes, architecture and oriental scenery, and the great Turner who gathered the whole force of late eighteenth century technique into one individualistic expression.

Daniell enjoyed a considerable reputation as a painter of architectural scenery. The famous drawing of the double bridge over the Pool, which he made for the younger Dance, proves his skill in this connection. But it was his drawings of palaces made during his tour in India that brought him recognition from the Prince of Wales. And these were the drawings which resulted in the instructions to Nash for the Royal Pavilion at Brighton, that strange Indo-Georgian pumpkin fantasy which, gimcrack as it is, defies both time and public opinion.

Turner, who was born in 1775, began his career by copying the drawings of Paul Sandby and other drawings of buildings which he borrowed. As a boy he worked in the office of Thomas Hardwick, where he made drawings of country houses and tinted architectural elevations. From the outset he was a great collector of drawings, and it was due to his training in Hardwick's office that he produced such classical compositions as Carthage.

Turner's early drawings of Gothic architecture are crude enough. He is seen at his youthful best as a limmer of buildings in the drawing he made of Cassiobury for the "New Vitruvius Britannicus."

From the foregoing will be deduced three important facts. The first concerns perspective drawing, which owed its perfection to the elder Malton. The second concerns the skill of the architectural draughtsmen in understanding the atmosphere of buildings, a peculiar quality of the work of the Maltons, father and son. The third point shows the sympathy that existed between the architectural draughtsman and the painter, particularly so in the matter of figures and accessory groupings.

Moreover, these men inherited the classical tradition in pictorial representation. The masses of

their drawings are always considered. There is design in the light and shade, the foreground and the figures. The tradition of the brown tree, brought to perfection by Wilson, Girtin, Louthenbourg and Turner, caused the painter architects to follow suit. Such close affinity between architects and painters could not have resulted save for the founding of the Royal Academy. There was yet another factor, namely, the growing interest of the middle classes in matters of art. Ackermann, the principal entrepreneur of the early years of the nineteenth century, foresaw the change and the eagerness of the public to participate in things of artistic moment. He it was who directed the skill of Rowlandson. The illustrations in Dr. Syntax give accurate ideas of interior furnishing of the time.

Pyne's *Microcosms of London*, illustrated by drawings made conjointly by the elder Pugin and Rowlandson, were also of moment. Pyne's *Royal Residences* was an Edition de Luxe. Such works, together with drawings by Garrard, did much to stimulate interest, while the famous *Repository of Art*, published in parts by Ackermann, kept pace with the luxury of the age. The public were now accustomed to reading illustrations. The demand for perspective views increased. Hosmer Shepherd was engaged to illustrate a pictorial guide to London. He was an accomplished pencil draughtsman and almost invariably drew in line. Another draughtsman was Buckler, to whom we are indebted for the magnificent drawings of almost every church and village in Hertfordshire.\*

There can be no doubt that the great advantage of visualising buildings in perspective added to the character of contemporary architecture. The architects conceived their buildings much in the same way as painters determine the treatment of their canvas. In addition, despite the mediæval windings of the streets of the City of London, rarely do we find a building of the period out of place. The rigid formality of the western streets of London no less than the picturesque grouping of the classical frontages in Regent Street called for pictorial skill of no mean order.

I have remarked on the influence of Piranesi and the effect of the etchings on the mind of Soane when he was a student at Rome. The full effect can be seen in the drawings of Soane's own build-

\* These drawings are now in possession of the Abbey Church at St. Albans.



ings, and it used to be a feature of the internal vistas at the Bank of England. It was Piranesi who inspired Joseph Gandy, who, born in 1771, became a pupil of James Wyatt. He made his first design for a triumphal arch at the Royal Academy School and afterwards studied at Rome. Although not a success as an architect, he was highly accomplished as a draughtsman. (Fig. 3.) The four fantasies shown in the present exhibition are impossible as buildings, but they convey something of

of photography pictorial draughtsmanship was supreme. In the lesser spheres, Scharf was making studies of the London streets, drawing shops, interiors, and street scenes with amazing skill. Neither should the name of George Maddox be forgotten; for it was this teacher who instructed Smirke and Cockerell when they were young.

George Maddox was forty years of age in 1800. He had seen the success of the Adams brothers, he had worked on the remodelling of the Pantheon



FIG. 3.—IMAGINATIVE COMPOSITION. By Joseph Gandy  
R.I.B.A. Collection

Piranesian rhetoric in Greek form. As drawings, these fantasies are of somewhat even tone and are lacking in definition, but they are symbols of the fervour for Greek art which pertained at the close of the Regency. John Nash, the architect, was not a great draughtsman, he must be considered as an organiser and a selector.

While new guides were in preparation to show current Metropolitan improvements, particularly the volumes prepared by the elder Pugin, assisted by a group of architects, the painters were not inactive in the sphere of topography. I have but to mention the names of Cotman, Bonington, Shotter Boys, Frederick and Joseph Nash, Clarkson Stansfield and Prout to show that prior to the invention

in Oxford Street in 1790. In addition, he assisted many famous architects, including Soane. As a painter in oils he enjoyed a considerable reputation, exhibiting for many years at the Royal Society of British Artists. In these works his style was similar to that of Gandy. Contemporary architects valued these free compositions for the fanciful ideas they showed. His chief contribution to the cause of architecture was his private school for drawing.\* Maddox died at the age of eighty-three, and almost to the last he was engaged making drawings for his professional friends.

Draughtsmanship was progressing, the vogue

\* In 1860, Decimus Burton presented the Institute with an album of drawings by his old master.



of the architectural perspective had come into being. William Wilkins was content to show his largest building in lines measuring not more than fifteen inches, but Vulliamy and others preferred a framed picture at least three feet wide. The traditional manner of detailed presentation persisted, as did the system of keeping to three tints at the most for the rendering. Fashion growing tired of Greek, favoured Italian, Elizabethan and

draughtsman. When the Gothic revival reached its height, almost every country parson kept a sketch book going.

So far, the general tendencies of the period have been touched upon. It remains to introduce the name of an artist whose work has long been forgotten, John C. Bourne. Thanks to the courtesy of the London Midland and Scottish Railway, the Royal Institute is enabled to exhibit the majority



FIG. 3.—GREAT VENTILATING SHAFT, KILARY TUNNEL. By J. C. Bourne  
Lent by the London Midland and Scottish Railway

Gothic in turn, and the vogue in each case can be gauged from the illustrated works of the late 'thirties and early 'forties.

I will not attempt an analysis of the qualities inherent in the lithographs of Thomas William Shotter Boys. The exhibition includes a number of original lithographs. This brilliant draughtsman studied in Paris, and exhibited at the Royal Academy. He portrayed early Victorian London and executed lithographed and engraved Ruskin's stones of Venice. Ruskin himself was no mean

of the drawings he made in 1837. The subject of the drawings is the building of the London and Birmingham Railway. Little is known of the early learning of this brilliant draughtsman, who equals if he does not outshine his contemporary, Shotter Boys. His drawings prove him to have been a master of the pictorial art. Whether he engaged to draw buildings or scenery he never failed to state sufficient to fire the imagination. His drawings, moreover, are masterly in contrast and design. I will mention the one which, in my



opinion, is the best, the entrance to Euston. Not only is this series of pencil and wash drawings illustrated and sparkling but we apprehend how the first great railway company regarded architecture, art, and engineering. In more senses than one the London and Birmingham Railway is a classic line. It begins with the Greek Doric portal at Euston, ascends the labyrinthine corridor of Regents Park (Fig. 4, *frontispiece*), becomes Piranesian at Primrose Hill, crosses innumerable Roman viaducts, based on aqueducts, enters a

all works of art were to be presented under glass. Glass shades were the order of the day for locomotive trains and wax fruit. But the exhibition had the effect of concentrating opinion on the value of the old handicrafts, and we owe the founding of the Museum at Kensington, with its manifold treasures, to the venture of 1851.

Draughtsmanship in the interim had by no means languished. Architects took their tone from Turner and their figures from Cattermole and Gavarni. The most serious competition was



FIG. 6.—BIRMINGHAM STATION. By J. C. Bourne  
Lent by the London, Midland and Scottish Railway Co.

Cloaca Maxima at Kilaby (Fig. 5), crosses a Gothic bridge at Rugby, the latter a concession to Dr. Arnold at Pugin, and finally terminates at the back of a Palladian Ionic office at Birmingham (Fig. 6). It is, indeed, curious that the termination of the eighteenth century spirit in building should have found expression in the construction of a railway.

The Great Exhibition of 1851 came fortuitously to mark the end of an epoch. One of the drawings on view shows how colours came to be regarded. It was thought that the millenium was in sight,

to come from photography. "Photography," exclaimed Frith, "it is a foe-to-graphic art," and to some extent it became inimical to architecture.

We have now to review some of the drawings exhibited. I have referred to the four fantasies by Gandy. These are freely composed, Greek in spirit but not in conception. There is something of the megalithic in their impossibility. The tone of the drawings, bistre and blue, is not unattractive. As pictorial designs they lack spontaneity. The drawing showing the interior of St. George's Hotel by Goodchild, Cockerell's assistant, is a sectional





FIG. 7.—CENTRAL STATION, NEWCASTLE. By John Dobson  
Lent by the Laing Art Gallery, Newcastle



FIG. 8.—ST. GEORGE'S HALL, LIVERPOOL. By H. L. Elmes  
Lent by the Liverpool Corporation



perspective. In this, perspective colour is introduced with the object of showing the marbled finishings. The figures are well grouped and show acquaintance with the style of Gavarri. The engineer's drawings of the High Level Bridge at Newcastle-on-Tyne are extremely explicit, and true specimens of technical drafting skill. It is evident that the designer understood proportion and the use of material. Slender piers are shown carrying the double-decked bridge across the river in an uncompromising way. As a dramatic *tour de force*, this bridge does not compare with the modern one near by, but at the time of its erection it was considered a wonder. It must be remembered, to the credit of the early engineers that they were eager not to offend. They were, moreover, experimenting. Two drawings are exhibited, both by John Dobson, of the Central Station, Newcastle. Here the subject is frankly a mid-nineteenth century version of a Palladian theme (Fig. 7). John Dobson was born in the year 1787. At a very early age, he showed a remarkable talent for drawing. As a child, he drew upon the gates and shutters of the cottages of his native village. The village schoolmaster, it is said, gave him his first set of drawing materials. At the age of eleven, he made designs for a damask weaver and at fifteen his father placed him under David Stephenson of Newcastle. Although destined to be an architect, nothing could keep him from painting. It is not surprising that he studied enamel work under Swiss and Italian refugees, and later water-colour drawing under John Varley. As an architectural draughtsman, Dobson is in the first rank. He invariably designed in perspective. His first care was to study the genius loci and to fit his buildings to the surroundings. His skill as a painter is seen in the handling of the pictorial groups in the perspectives. There is evidence also in the drawing of Jesmond Cemetery, that he was influenced by Turner's paintings. The Institute is also fortunate in possessing some important drawings by Harvey Lonsdale Elmes. These include the first studies for St. George's Hall (Fig. 8) and the competition drawing for the Royal Exchange, London. But attention must be given to the two slight bistre drawings of St. George's Hall. The larger of these drawings proves that at the hands of a master superfluous matter can be omitted. As a young man, Elmes was influenced by the etchings of Piranesi, which he studied when in the

office of the older Goodridge at Bath. On occasion he could depart from the definitely classical as, for example, when he competed for the Pauper Schools at Liverpool.

As a draughtsman, Elmes was gifted, he had the power of setting down his ideas to convince himself. It is clear from his perspective drawings that they were made to satisfy his own regard for an ensemble. Hence the directness and the clarity of statement. He had no use for tricks, and although his drawings lack design in the pictorial sense, they stand as works of the mind.

The Roman reconstructions, loaned by the Council of the Royal Academy, include the Temple of Jupiter Capitolinus, the Forum of Nerva, the Temple of Julius Caesar, Interior of the Ulpian Basilica (Fig. 9), and the Tepidarium of the Baths of Caracalla (Fig. 10). These masterly drawings show the skill of Professor Cockerell at his best. There are no other architectural drawings to my knowledge showing such economy of effort combined with force. With the exception of the drawing of the Tepidarium, which is in bistre, the other drawings are executed in tempera; the method is extremely difficult to describe. The reconstructions were based on the information of Canina, with whom the professor was in close touch. They were prepared by Professor Cockerell for the benefit of the students at the Royal Academy and together with his famous "drop curtain" view of famous buildings (Fig. 11), and "a tribute to the tenor of Sir Christopher Wren," were a source of inspiration to very young architects. Cockerell was a draughtsman of the first rank. His sketch books show his versatility. Nothing came amiss to his pencil, pen or brush. Greek detail, landscape, an etching of the Acropolis, a delicate water colour, intricate mosaic, or delineation of sculpture, he could set anything down. He had trained himself to think of the ultimate effect of his designs, not their effect on paper. "He possessed the skill of a painter combined with the eye of a sculptor. When his drawings are studied, you will observe the accent given to the structural qualities. This is especially noticeable in his drawings of rocks and landscapes. The lessons he had learnt from George Maddox were not disregarded. The facility of expression which Cockerell enjoyed was gained slowly. His earliest drawings are laboured, not so the later ones, and it is clear that by industry he trained himself to concentrate on essentials.





FIG. 9.—INTERIOR OF THE ULPIAN BASILICA, ROME. By C. R. Cockerell, R.A.  
Lent by The Royal Academy



FIG. 11.—"DROP CURTAIN"—VIEW OF FAMOUS BUILDINGS. By C. R. Cockerell, R.A.



It was my privilege to obtain the loan of his original sketch books and free studies for some years, therefore I speak with some feeling as to Cockerell's methods. Gothic did not attract him. It is true for a time he dallied with the idea of testing the possibilities of the early Renaissance

survival of the late eighteenth century method of illustrating buildings. The architects of the day followed one another in the matter of coloured perspective drawings very closely, as can be seen from the drawing of the Arch at the Head of Constitution Hill and the Screen at Hyde Park by



FIG. 10.—RESTORATION OF THE THERMÆ OF CARACALLA. By C. R. Cockerell, R.A.  
Lent by the Royal Academy

in England; the design for the Houses of Parliament was conceived in this vein. At another time he bowed to fashion and undertook to lecture on Gothic architecture. His sympathies, however, were frankly classic. In a different category are the two aquatints by Garling, showing the Corn Exchange at Guildford. Here is to be seen a

Decimus Burton. The drawing of the Royal Arcade at Newcastle-on-Tyne by Dobson is chiefly interesting, by reason of the waggons and the people. This building is not one of Dobson's best, but I commend the figures to your notice. The drawing, unfortunately, falls into two parts, the picturesque groupings being the stronger.



The lithographs by Shotter Boys are taken from the published Continental series, a rare copy of which is in the Institute library. Another prolific architectural draughtsman of the early nineteenth century, Professor T. L. Donaldson, is represented by a view of a "Temple of Victory," (Fig. 12). This design is in the nature of a fantasy. The details are minute and at the same time clever, but, interesting as it is, the equality of the pictorial massing is too even and the presentation loses in dramatic force.

a gold medallion. The drawing was exhibited at the Royal Academy in 1819 and is now in the Institute Collection (Fig. 13). Goldicutt's drawings are meticulous in execution; they have the quality of rare illuminated manuscripts. I would recommend all students competing for the Owen Jones and, indeed, all interested in colour decoration and presentation to study Goldicutt's methods. The aim of this architect was to state actual facts with the greatest accuracy in elevation. From my knowledge of architectural drawings in the famous



FIG. 12.—PERSPECTIVE VIEW OF A TEMPLE OF VICTORY, ACCORDING TO ANCIENT USAGES. By Professor T. L. Donaldson  
R.I.B.A. Collection

The superb drawing, by John Goldicutt, of the interior of St. Peter's at Rome demands more than ordinary attention. It is not generally known that Goldicutt, when a young man of twenty-three, made a journey to Italy in 1816 to collect material for books on antique architecture. The plates for these works were etched by himself. He spent a whole year measuring the interior of St. Peter's, including studies of the decoration and the paintings. When the drawing was finished it was shown to the Pope, who presented the young architect with

collections of Rome, Paris and Brussels, I have never seen the equal of this interior of St. Peter's. Who among students to-day would be prepared to devote a whole year to one drawing? The original drawings made by Quarenghi for Catherine of Russia, some of which are in my private collection, attempted something of this sort, but they fall short of Goldicutt's precision and charm of presentation.

From this point I will mention the names of architects whose power as contemporary draughts-





FIG. 13.—ST. PETER'S, ROME. By John Goldicutt  
R.I.B.A. Collection.



FIG. 14.—DESIGN FOR HIGH SCHOOL, EDINBURGH. By Thomas Hamilton  
Lent by the Royal Scottish Academy



men was admired. The best includes Edward I'Anson, John Johnson, R. W. Heneker, E. Ashworth, Charles Fowler, John Davis, Benjamin Ferrey, H. R. Ricardo, T. H. Lewis, James Lockyer and D. Mocatta. The exhibition includes the works of several of the former. The lithographs of the Victualling Yard were made from Sir John Rennie's original drawings by Charles Purser, that of London Bridge Station by C. Childs. We now arrive at a point when two outstanding examples of the artist architect's skill must be considered. The first in order of merit is the superb drawing showing the galleries designed by Hamilton at the base of Princes Street, Edinburgh. As a perspective drawing, this is a tour de force and an object lesson to the draughtsmen of to-day. I recommend all students to study this drawing. The second drawing, also by Hamilton, shows the High School, Edinburgh, with the Castle in the distance (Fig. 14). From these magnificent perspective drawings you will gather the impression that the architects of those days were indeed giants. Apart from questions of style, fashion, taste or anything else, the buildings shown, appear to grow into position, as they do in reality. I submit, therefore, that when perspective drawing is properly employed it is an aid to architectural devisement. In the same category as the two last I would place the delicately rendered drawing of Donaldson's Hospital at Edinburgh by W. H. Playfair.

It is unfortunate that the revived Gothic side of the period should be so sparsely represented. True, we have the elevations and sections of the Palace of Westminster, which, all things considered ranks, with St. George's Hall as the finest contribution of the early Victorian period. Dealing with the drawings made under the direction of Sir Charles Barry, we must look upon this set as having been prepared after the completion of the works. These drawings provide an index to architectural practice of the day. They are so finely drawn that any detail can be read without effort. We observe the building to be structural in the true architectural sense. The introduction of ironwork in the upper stages of the Victoria Tower in the form of structural supports, is alone a symptom of decline. There are others who will say that the exploitation of the Gothic style is the bigger sign of decline. Be this as it may, there is no doubt of the fact that Barry possessed a pictorial sense and the conventional scenery of Westminster owes much to his skill. Barry produced a classic plan; he wisely employed



ST. MARY'S CHANTRY, WAKEFIELD.  
Sir George Gilbert Scott, Architect. Drawn by G. E. Street  
Lent by Mr. C. M. Oldrid Scott



Pugin to assist him with the details, but Barry alone conceived the silhouette, and he was enabled to do this by reason of his early training in the fields of topography. It is a pity that drawings by Pugin were not forthcoming to increase the interest of this remarkable exhibition. I for one should have welcomed the inclusion of some of the line drawings which it is said were made with a carpenter's pencil. In their place we have drawings by Sir Gilbert Scott and Edmund Street. The drawing of Hillesden Church made by Scott when he was a boy of sixteen is prophetic of the volume of work to come. There is another drawing showing St. Mary's, Radford, his first church restoration and a large detail of St. Nicholas, Hanbury, made in 1842. This latter is an ordinary office drawing. There is the large coloured perspective of the office building and Monument, Broad Sanctuary, Westminster, and four charming water colour drawings of the Abbey interiors made for the architect at the time he was working on the fabric.

More interesting are the free sketches made by Street for Inkpen. We also view the initial workings of an architect's mind. Such drawings were never intended to be exhibited, and for that reason they are self-possessed. Had there been space more sketch books might have been shown. As it happens, the Committee secured the loan of one of Sir Gilbert Scott's books, but it would have added to the interest to have shown others. The drawings by Phillip Hardwick afford evidence of the ambidexterity of most architects in practice between the years 1820-1850. Phillip Hardwick, it will be remembered, designed the Great Hall at Euston, and in fact influenced the architectural policy of the Railway Company. On the Gothic side he astonished his professional brethren by designing the Hall and Library at Lincoln's Inn a few years later, and after that appears in the capacity of an exponent of both Gothic and Classic. Hardwick's Gothic drawings include the interior of the Town Hall, Durham, Lambeth Church restoration, and the College of St. Columbus, Ireland, of which part only was executed. It is perhaps to be regretted that more suitable drawings illustrating the Gothic revival have not been obtainable. There is this to be said in extenuation. The earliest works of the revival were, in the main, restorations and reconstructions of ancient buildings. Such drawings as exist of the lesser Gothic churches in London, Brighton and other cities are too slight

and indefinite to do credit to the movement. The period of large Academy perspectives illustrating Gothic buildings did not begin until the next decade. It should be remembered that we are deprived of the later works of Sir Gilbert Scott, Street, Burgess, Butterfield, Brooks and a legion of others. The drawings on exhibition, however, do afford fair evidence of the dominance of the classic contribution.

Having seen the slides and the drawings on the walls, you will agree that the most fruitful assistance that can be given to the art of architecture is by the encouragement of drawing. In the short space of an hour you have viewed the labours of half a century of the best architectural art. In the light of present day experiences, these drawings and the ideals they represent may appear dull. I will ask you to judge them not impertinently as moderns, but impartially as historians. Viewed thus with dispassion the art of the first half of the nineteenth century passes the test of the magnifying glass tolerably well. The artists were not deficient in the critical faculty. It is ridiculous to say that the things these men contributed were futile. They could not escape the trammels of their period. Their best works were moulded by local and circumstantial factors. But they had the courage of their convictions, they revered the tradition of building and if they fell into the pitfalls of style that was the fault of the economic conditions.

The period opened upon a struggle with France. The drift of the rural population towards the centres of industry was not acute. Agriculture practically balanced industry. The landed classes were in a position to control local affairs. Those in a position to employ architects and encourage artists were generally men of broad vision. The Royal Academy was a potent force. The rules which circumscribed the arts, militated against individuality but prevented unbridled license. After the Napoleonic wars all this was to change. Steam power was invented and art of the traditional type made vainglorious efforts to keep pace. Hence the use of the Greek Doric Order in cast iron and Gothic panelling in the same material.

The newer forces of democracy came sweeping on to further upset the equilibrium. Larger and even larger public buildings were needed. The iron order came to the assistance of the old order, and made confusion worse confounded. The new wine proved too strong for the old bottles. And



yet with it all some sort of artistic equilibrium was kept. The architects who had been trained as draughtsmen thought in terms of perspective; their struggle was to maintain discipline. Even the engineers saw, or thought they saw, the force of the argument. The pressure of democracy led to a demand for bigger floor space, and this in turn led to extravagant versions of the styles. It is, therefore, significant of the struggle for democratic expression that the two greatest buildings of the early Victorian period should have been the one Classic and the other Gothic. In reality we have the last symbols of the stand for stylistic tradition.

The Exhibition building of 1851 was frankly the handing over of democracy to the Engineers. To-day the Germans call it the beginning of modernism.

Viewing these perspective evidences of the art of a century ago, we cannot fail to be struck by the consistency of the artists who laboured in very difficult times. The lesson to be learned is that true building must never be bastard engineering and that human ant heaps are intolerable. Another lesson to be learned is that less than a century ago both architects and the public appreciated discipline in the design of buildings. On this showing draughtsmanship was a contributory factor.

## Discussion

THE PRESIDENT, SIR BANISTER FLETCHER, F.S.A., IN THE CHAIR.

MR. CHARLES AITKEN (Director, National Gallery, Millbank), in proposing the vote of thanks, said: I do not think Professor Richardson needs any bush after this fascinating lecture. We all know his fine and splendid work in the Duchy of Cornwall, the Bedfordshire churches, and buildings in the City, and London University Hall. The Slade School and the Royal College of Art have been especially fortunate in having professors like Richardson and Worthington, who have such a vast knowledge of, and enthusiasm for, their subject—an almost explosive enthusiasm in the case of Professor Richardson, which enables him to mesmerise his students and causes his enthusiasm to pervade the whole school. I think Professor Richardson has very much at heart the desire that architects should meet artists and the public half-way by the beauty and whole æsthetic effect of their drawings, as we have seen in the wonderful drawings which have been thrown on the screen to-night. Artists have always paid a great deference to architecture. We have, at the Tate, those wonderful architectural drawings of Turner, and the drawings of architectural subjects by artists, from Sandley, Girtin, Cotman and Prout right down to the times of Holland, Ruskin and Bone in our own time. I think Professor Richardson is very anxious that architects should meet artists in the same way. Possibly that is easier now, because artists are so specially interested in rendering mass and three dimensional volumes, so there is common ground for artists and architects to meet on.

I believe that, on the Stock Exchange, certain commodities, such as rubber, are described as "naughty," and in the same way I think architecture is occasionally liable to be "naughty," and I think that Professor Richardson has a rather tender feeling for the "naughty" side of architecture. I always associate him

with Mansion-Houses. I was brought up in York, where there is a fine old William IV Mansion House. I remember him once mentioning Cheltenham and St. Petersburg as two Meccas of architecture, and I made, in consequence, a pilgrimage to Cheltenham, where I found, amongst other treasures, a regular museum piece of a pure William IV chemist's shop, such as is dear to Professor Richardson's heart.

Professor BERESFORD PITE [F.], in seconding the vote of thanks, said:—It is to be regretted that the school of artists who produced such interesting examples of architectural draughtsmanship has ceased to exist, but it should be remembered that this is due, not so much to the spirit of the age and its different outlook, as to the development of photographic processes. Architectural drawing as an art suffered from the introduction of lithography, zincography and the toned block.

The school that has been illustrated to-night embraces a series of great artists, whose practice originated in the topographical illustrations of seats, and whose services were as necessary as those of the family limner. The masters of water-colour, whose work made the English school famous, owed their acquaintance with detail and their interest in architecture to this training and source of employment. It can be traced in the work of Turner, while Cony, Prout, Mackenzie, than whom no greater architectural draughtsman can be cited, David Roberts, Harding, Callow and Cotman are to be included in the review.

The draughtsmanship required by steel engraving is of a high quality, and from the end of the sixteenth century has been devoted to the art of architectural illustration. The pioneers of these topographical plates are the Du Cerceaux, who published the series "Les plus belles bastiments du France." These were imitated later in England by Vitruvius Britannicus, and



the art continued in the work of Le Keux, who engraved the illustrations of Pugin's examples. The invention of lithography in the early nineteenth century had very important results, and itself occasioned the work of the best artists in a new and beautiful medium, which, alas, has almost entirely passed out of use.

Professor Richardson has omitted to mention the influence of composition upon the makers of architectural scenes. The artistic spirit endeavours to compose the elements of the picture as a design having composition of line, of light and shade and colour. The drawing exhibited by the accomplished architect, T. L. Donaldson, shows this quality more markedly than the work of Gandy—who, it may be added, was associated as partner with Wilkins in his later work at the National Gallery and in his masterpiece, University College, Gower Street.

MR. J. L. HODGSON: In his lecture Professor Richardson has exhibited an almost Piranesian facility in contrasts, and in putting things in an interesting and fascinating way. And he himself is no mean draughtsman. I do not know how many of you have seen the thumb-nail pictures with which he has illustrated his book on the small country house. They are amazing presentations of each house, done in a few lines, not a line too much; and every line expressing, in a Piranesian way, the things he wants to say. I am in agreement with the last speaker in his condemnation of what we have lost by the discovery and use of photography. One has only to refer to the illustrated papers and journals of 80 or 100 years ago to realise how much more interesting and individual the pictures made by artists instead of by photographers actually can be. I was looking, the other day, at the book published by Dickinson, which illustrates the Great Exhibition of 1851. There is no record of any modern exhibition to compare with it. In the illustrations by Nash, Hague and Roberts in that book there is marvellous drawing, wonderful colouring, specific detail, and carefully selected and presented fact. The book has a human interest which no group of photographs, however good, can ever have.

It would be, to my mind, a most desirable result if this fascinating lecture of Professor Richardson's, to which we have listened, was to mark the commencement of the re-presentation by means of individual and skilful drawings by competent artists of the record of contemporary buildings, places and events. Why should we not have at least one journal illustrated by drawings instead of photographs? It is all very well to tell students they should acquire skill in draughtsmanship; but until there is again a demand for this, it is useless to call for it.

We have the drawings of Piranesi and Bourne to show what can be done. Why should not some of our

young artists excel even them if given the necessary encouragement?

MR. JASPER SALWEY [A.]: The matter which has just been raised is a serious one in relation to draughtsmanship—the question of photography. Recently I have approached several journals in this country and America with regard to the reproduction of drawings of buildings and projects in Europe and England particularly. I have been informed that they do not see their way to include such drawings because the journals in almost every case are illustrated by photographs.

You cannot, however, photograph buildings which do not exist, and there the draughtsman's opportunity occurs. It is, however, strange, that such a comparatively limited use is made of perspective drawings. Much is done—it is true—in the way of using small perspective drawings for trying out ideas in offices and for presenting schemes to clients also for exhibition purposes. But it is a great pity that some movement cannot be organised to exhort English journals to make greater use of the existing latent powers of present-day draughtsmen.

I am sure that some of the students and young architects of to-day are capable of turning out wonderful perspective drawings if they were encouraged to do so. It is not often, however, that draughtsmen are—nowadays—given the opportunity to work out any really big drawings of this kind.

The technique and mechanical side of perspective work has been developed, but there is comparatively little opportunity for carrying out really important drawings on a large scale.

Yet, just now, particularly when so many tremendous ideas are being put forward for the rebuilding of districts in London alone, what a marvellous opportunity there might be for the draughtsman, for instance, with regard to such schemes as the Charing Cross bridge. Great illustrative drawings might be made of such schemes if the opportunity were offered.

I appreciated particularly Professor Richardson's remarks with regard to the relationship between the development of water-colour work and architectural draughtsmen. There is no doubt that the actual evolution of the medium of water-colour was largely aided by the fact that it was enthusiastically exploited by the architectural draughtsmen of the time.

MR. W. J. LEVERTON [F.]: Professor Richardson referred to Sir Charles Barry's drawings of the Houses of Parliament, but I do not think he showed any. The whole of the drawings of the Houses of Parliament are in the Office of Works. Edward Barry, the son, was made by the First Commissioner to hand them all over to the Office of Works.



Mr. J. S. CLELAND [F.] (South Africa) also spoke.

Mr. LOUIS S. ROBERTSON (Australia): Professor Richardson made one little remark about perspective; I think he meant perspective in the composition of design. So many architects design their buildings on paper without any consideration of the perspective of the completed building. It was the masterly way in which the old artists put their designs on paper that enabled the architect and builder to know exactly what was required, and what the buildings would look like.

The PRESIDENT: I am sure we have all been very much interested in the paper to-night, and I think most of us will look forward to the publication of the full paper in the R.I.B.A. JOURNAL, in which I hope Professor Richardson will be able to give us some of the illustrations, although, of course, they will be without colour. Professor Richardson is known to most of us as the Head of the very important University School of Architecture, and I always, myself, have great pleasure in looking forward every Christmas to an Architectural Phantasy, which he has produced during the preceding year—it takes

him nearly a year to produce it, I think. Some of these Fantasies in the Christmas Number of *The Builder* are, to my mind, the most pleasing and instructive pieces of work that I have ever encountered. It shows that Professor Richardson himself is a most accomplished and most delicate draughtsman, and full of that imagination which every architect should possess. It gives me great pleasure to realise that we have a man like him at the head of one of our great Schools of Architecture, because I believe, with him, that an architect should be able to draw, and to draw well; it is a necessity if he is going to be successful in his profession.

Now, ladies and gentlemen, the Royal Institute Galleries contain a vast number of drawings, which have been got together from our Library and other sources, and I think you will find they will be of great interest to you to study.

All I have to do now is to put to you the vote of thanks, already proposed and seconded, to Professor Richardson for his most admirable paper.

This was carried by acclamation.

Professor RICHARDSON replied.





## The Architect and the Engineer

BY SIDNEY TOY, F.S.A. [F].

Bridges, railway stations, dams, and works of similar character, though the special province of the civil engineer, are often influenced by factors much beyond his province. Their prominence and the relationship they bear to their surroundings introduce questions of plan and proportion, more proper to the architect than to the engineer. It is clear that if the design is to be a complete answer to all the questions involved it should be under the direction of one supreme authority. This directing head must be capable of correlating and satisfying all the conditions, not only of skill and economy of construction, but of provision for the future development of the neighbourhood in which the new structure is to be placed. He must consider also the relationship it will bear upon its surroundings and the æsthetic qualities of the structure itself.

In a small volume, recently published,\* an American engineer discusses the subject, and makes some deductions arising out of his own experience. Though one may not approve of all the author's deductions, or be impressed with his own essays at architectural embellishment as illustrated in the volume, one cannot but appreciate this attempt to approach the subject from an engineer's point of view. But the root of the matter goes much deeper than is suggested in this work.

In former days civic works were undertaken in the same manner and spirit as all other works. It was the normal experience of the Romans, the Byzantines, and the builders of succeeding generations, to be faced with entirely new problems. The problems were assailed and solved precisely as was required by the necessities of each case, and with due regard to all the factors of construction, durability, and economy with which we are faced to-day. But there was no question of the relative province of the architect and the engineer. An aqueduct had to be built in an isolated and wild country in an awkward position. The work was treated as a whole. Traditional practice and initiative combined to overcome the difficulties presented and to produce a work which was usually an object of beauty as well as a masterpiece of construction. But it was beautiful because it satisfied all the conditions postulated by the case—and it is to be remembered that economy was normally one of the most important—and because the difficulties it presented were solved in a most scientific manner. It was beautiful for these reasons and for no other. Fortifications, bridges, towers, and cisterns were constructed on similar principles and owe their beauty

to the same cause. Such applied ornament as they now possess, in many cases added at a later period, seldom improves their effect, and by introducing disturbing elements, often seriously compromises it.

In modern times so great is the demand for works requiring especial engineering skill that expert knowledge is necessary both of the properties of steel, ferro-concrete and other manufactured materials, and of the manner of using the material, so that the thrusts of a structure are neutralised and the weights properly disposed. Specialised concentration on the subject is therefore essential, and the severance of the architect and the engineer is a natural consequence. The engineer when unencumbered by external influence, and when not himself under the impression that he must embellish his work but allows it to express itself in its own forms, often produces results worthy in all respects. The old timber viaducts of the Great Western Railway in the West of England, for example, were objects of beauty as well as examples of skilful construction. But when the engineer endeavours to embellish his work by applied ornament, or when, at the last stage, an architect is employed to embellish it for him the result is generally in the highest degree unsatisfactory.

So the architect, untrammelled, has proved himself a master of construction as well as of form. And this though his attention to-day is especially devoted to the design of the great variety of buildings with which he has to deal, and to the study of dignity of proportion, the plastic treatment of building masses, and the proper lay-out of streets. Given the opportunity he could doubtless still produce work not unworthy of Anthemius, Brunelleschi and Wren, who are among the first engineers as they are among the first architects in history.

It is evident, however, that the problems of civic building of the present day, intensified as they are by the ever-growing increase of traffic, demand for their solution the united effort of both the architect and the engineer. But if the result is to be a success the association must be fundamental. The difficulties of the problem must be thrashed out and overcome together. The architect is not a decorator to be called in after the main principles of the scheme have been settled.

In the course of years general knowledge of structural progress must have its effect on human appreciation of æsthetic values, the requisite bulk of supports, and the breadth of spans. Traditional practice has trained the eye to expect a certain bulk of support for an obvious, or apparent, great weight. For the

\* *The Ideals of Engineering Architecture*. By Charles Evan Fowler. Gillette Publishing Co., Chicago, 1929.



moment, therefore, the eye is offended, in this respect, by such buildings as the church of Notre Dame du Raincy, near Paris. But in the process of time as the mind is able to grasp the fact that the support is adequate to the weight placed upon it, the eye will doubtless be offended when the supports are unnecessarily bulky.

The architect and the engineer must work together in the closest concord. Architecture is of the very essence of building, and in any civic scheme if the architect is to be consulted at all he is the first person from whom advice should be taken. If the engineer has not made his work speak for itself then no architect who has not waded through the problems of the case step by step can make it speak for him. The architectural modelling, when it is done, must be done by a mind which appreciates thoroughly every fundamental principle of the construction. Nothing short of this will stand the criticism of future generations or the test of time.

## Review

DECORATIVE ART. By ARNOLD SILCOCK.  
THE STUDIO YEAR BOOK OF DECORATIVE  
ART, 1930. Sm. fo. London, 1930.

The publication of the Year Book is an annual event looked forward to by all artists with keen expectation, and this year the book is up to its usual high level in the variety of the subjects illustrated and in their presentation.

In furniture and interior decoration the English designers and manufacturers more than hold their own with their Continental rivals, although it is obvious that they are inspired for the most part by the latter. In this branch of applied art we owe a great debt to the "Maison Dim," who, however, are represented this year by illustrations which do not do their work justice. In this issue, too, the Americans are very much to the fore, showing that they have now assimilated the spirit of the present style and are able to produce works similar in their general lines but quite individual in design.

The glass is not so satisfactory and most of the really attractive and rational pieces are of foreign manufacture. This criticism fortunately does not apply to the ceramics. The work of such English designers as Bernard Leach, Winifred Gilbert, Raymond Parsons, D. K. N. Braden and others is all of a very high standard and atones for our deficiency in glass design.

Glass has now invaded the territory of timber, and included in the furniture section can be found ingenious photographs of tables constructed entirely with thick plate glass and metal tubes. The clever photography lends them a false appeal. The design, however, is also clever—much too clever—for can it be called rational evolution to design furniture in these days which is readily damaged and which shows every speck of dust and every finger mark. The place for these pieces is surely the interior of one of the highly sanitary, whitewashed groups of boxes illustrated under the title "New Influences in Architecture."

The militant extremists amongst us are busier than ever this year. When will they learn that to be shockingly original should by nature be the aim of the very young, who have neither found themselves nor found their level amongst their fellows? When will they discover that to break with tradition, or—in other words—to show childish intolerance for the beauty created by their forbears, is an attribute of the young newly escaped from the parental roof, and while this attitude has its value in loudly calling attention to the faults of the old, it can never of itself create anew? It is the policy of negation and denial. What is needed is the policy of acceptance and rational evolution. Some of the houses illustrated have the appearance of a species of box-like guinea-pig house which might have been devised by a megalomaniac millionaire for the housing in sunny, sanitary quarters of his pets. They have not the qualities which endear a house to a man and his wife, which they can live with, love, and gradually stamp with their own character. Nor have they the aspect of homes in which children might be brought up. Something more than the elimination, sanitation, sunbath craze must be in the minds of the designers and their imitators before their work will live.

Another aspect of this craze to be new is the apparent desire to use well-known materials, but in the most unlikely places. So we have concrete for the entire structure of the house, steel and glass for furniture, and so on—neither an economic nor a pleasing exercise. The attempt to make the more pretentious house (that which is not a mere cluster of boxes with lids off or on) looking like the side of a liner or a battleship's conning-tower and bridge, anything in fact on sea or land except a house, is another unhealthy symptom. Although it is interesting to see a few examples of these experimental types, yet surely there are plenty of reasonably designed modern, labour-saving and yet lovely houses which might have been illustrated? Few have found their way into this year's "Studio."

ARNOLD SILCOCK [F.].

## Correspondence

STANDARDS OF ADEQUACY OF DAYLIGHT  
ILLUMINATION AND REASONABLE FENES-  
TRATION.

39 Maddox Street,

Regent Street, W.1.

9 May 1930.

To the Editor, JOURNAL R.I.B.A.—

DEAR SIR,—I observed the article with the above heading from the Science Standing Committee of the Institute in the JOURNAL of 12 April, and also the invitation to communicate with you regarding this matter. I believe that a considerable public service would be rendered by the Committee if reasonable standards of adequacy could be defined. I have observed in *Easement of Light* cases how the fenestration of some old-fashioned building has been regarded by the Court as a standard of adequacy, and consequently, as a justification for granting an injunction. Such injunctions have too frequently been the means of restricting the development of important building sites, in a manner that I believe



most architects would regard as contrary to the interest of the public as a whole. I take no exception to the judgments, legally they may be perfectly sound. The business of the Court is to administer the law, as it stands, and not to consider the desirability of modifying the law in the interests of the public as a whole. That is a matter for Parliament to deal with and not the Courts. Nevertheless, if liberal and reasonable standards of adequacy had been available and generally accepted, it seems to me that the Courts would have been obliged to give them due consideration and to be influenced by them. Such consideration would, I am inclined to think, have tended to deter judges from granting injunctions to the extent that they have done for the protection of dominant tenements that can only be regarded as antiquated relics of a past age, designed without regard to the demands that architects are now obliged to recognise.

Regarding the matter from this aspect, I am inclined to think that, in the best interests of the public as a whole, and from the point of view of architects, who desire to move with the times and to design their buildings in a manner that will be in accord with modern thought, in all respects, it is not politic to suggest that a criterion of reasonable modern fenestration can be obtained by averaging the designs of town buildings in the manner explained and illustrated in the JOURNAL. It seems to me that the object of preparing a standard of adequacy should be to produce a criterion that will be of value for use in the future, rather than something that will merely serve as a record of what the public have endured in the past. In order to be practical, I suggest that the possibilities of obtaining improved lighting by means of carefully designed bulk-heads and by windows rising at least to ceiling level, if not above, should be indicated. Bulk-heads might serve as useful tables by the windows in the rooms over. By means of such bulk-heads, it is obviously possible to enable the direct daylight to penetrate further back into the interiors.

Again, I would suggest that questions of adequacy of internal illumination cannot be considered without regard to the width of the street opposite. Conditions that might be favourable, fronting a wide, open thoroughfare, might be quite the reverse, if not intolerable, fronting a street of about a third the width. I, therefore, think that the question of width of streets is inseparable from and a part of the question to be considered, in attempting to define any standards of adequacy of fenestration. For my part, I should like to see streets or open spaces of widths not less than the maximum heights of the main parts of the loftiest buildings fronting them. Daylight I regard as essential to both physical and mental well-being, and as an amenity that should be preserved with all possible care.—Yours faithfully,

JOHN SWARBICK [F].

#### SALARIED MEMBERS' COMMITTEE.

6 Pump Court,  
Middle Temple, E.C.4.  
10 May, 1930.

To the Editor, JOURNAL R.I.B.A.

SIR,—May I call attention to the fact that the three states of employment, *a*, *b* and *c*, which the Salaried

Members' Committee has organised itself to safeguard and regulate, leaves out that particular state which most needs policing: namely, the employment of salaried architects by drapers, upholsterers, land agents, auctioneers and so forth, who offer the public architecture on enticing terms.

It is not a great many years since an Oxford Street emporium displayed a model of a house by a famous architect, whom we will call "Jordan" (copied from illustrations in *The Studio*), and offered to build "a Jordan House" for anyone who had a fancy for that line of goods; and at this day anyone may go into a certain store and in the basement department, where onion seed and garden rollers are sold, see designs for stained glass church windows and order those articles across the counter from an ingratiating creature who may—or may not—understand as much of stained glass as the time-expired soldier who attends the lift.

If the marshalling of the profession, and registration—when we get it—is not going to safeguard architects from being buttoned up in the pockets of commercial exploiters, as handicraftsmen already have been, all will be in vain; and if the Salaried Members' Committee is not going to take cognisance of that matter, what committee is?—Yours faithfully,

H. B. CRESWELL [F].

#### EASEMENTS OF LIGHT.

9 Gray's Inn Square,  
London, W.C.1.

7 May 1930.

To the Editor, JOURNAL R.I.B.A.,—

SIR,—In the issue of the JOURNAL for 26 April, p. 434, the report of a paper read before the Sheffield and South Yorkshire Society on the above subject concludes with the citation of the dicta by Lord Thesiger in the case of *Stinges v. Bridgman* to the effect that what might constitute a nuisance in Belgrave Square need not necessarily do so in Bermondsey.

The necessary data to enable this case to be referred to is not given. Presumably it is a judgment by Lord Chancellor Thesiger, Baron Chelmsford—who died in 1878. If so it would be very decidedly pre-Colls, and would therefore be subject to correction by the decision of the Colls case. In the reported and frequently cited judgment of Mr. Justice Russell (now a Lord of Appeal), in *Horton v. Beattie*, 1926/1/Ch., the decision as to the effect of neighbourhood on rights of light is the precise opposite of that given in the presumably pre-Colls case of *Stinges v. Bridgman*. The test since Colls is of course the sufficiency for ordinary purposes of the light left, whereas pre-Colls the light taken was often considered. On this basis the Horton judgment points out that the human eye requires the same sufficiency in a side street in Wolverhampton as it does in Park Lane, which is not only good law but sound common sense.

Any dictum in a judgment prior to the House of Lords decision of Colls does not necessarily carry any weight to-day. This possibly explains the absence of any mention of the case cited in *Coombe's Law of Light*.—Yours faithfully,

PERCY J. WALDRAM [L].



# THE ARCHITECTS' JOURNAL AND ARCHITECTURAL ASSISTANTS.

7 May 1930.

To the Editor, JOURNAL R.I.B.A.

May 1, through the medium of the R.I.B.A. JOURNAL, direct the attention of members to a new departure in the policy of *The Architects' Journal*, which proposes to place its columns, free of charge, at the disposal of architectural assistants requiring posts.

In the issue of 16 April an excellent leading article appears under the title of "The Architectural Assistants' Problem," and to anyone who has devoted a good deal of time in attempting to improve the lot of assistants and salaried men generally, a gesture of this nature by a well-known journal is particularly welcome. Any attempt, from whatever source, to solve this difficult problem is a benefit conferred and doubly valuable when the effort comes, unsought, from the technical press.

Whilst expressing my appreciation of the generous offer of *The Architects' Journal* and wishing it every success in this new venture, I should be lacking in my duty to others were I to refrain from commenting upon certain references made in the leading article as to the absence of organisation among assistants and the lack of sick benefit and unemployment pay. The Salaried Members' Committee of the R.I.B.A. has done a great deal in its brief career towards the organisation of the salaried man, and will in time accomplish much more in its efforts to benefit this class and also the profession generally. The A.A.S.T.A. has likewise borne its share, and for over ten years has worked towards better organisation among assistants. It also offers its members the sick and unemployment benefits which have been referred to by *The Architects' Journal* as not being available for assistants. Moreover it has an excellent employment exchange to which about 200 vacancies are notified during the course of a year.

Many salaried men and assistants have not yet realised the importance of organising and prefer to rely upon individual action, although modern conditions indicate, quite clearly, how necessary it is for those interested in any subject to combine together in order to accomplish anything.—Yours very truly,

WILLIAM H. HAMLYN [A.]

*Hon. Secretary, Salaried Members' Committee  
R.I.B.A.*

*President, Association of Architects, Surveyors  
and Technical Assistants.*

# STONE BALLS ON GATEPOSTS.

87 Buckingham Palace Road,  
S.W.1.

April 1930.

To the Editor, JOURNAL R.I.B.A.—

SIR,—I should be glad of any information on the following query:—

I am informed that a stone ball surmounted on a gatepost indicates a Manor House. Is there any foundation for this statement? If this is the case is there a corresponding symbol to mark the entrance to a "Court," etc.?—I am, Sir, Yours truly,

PERCIVAL M. FRASER [F.].

# BAD TASTE IN CHURCHES.

At a service in Southwark Cathedral on 20 May, observed as the "day of art and music" of the Southwark Diocesan Festival, the Bishop (Dr. Garbett) gave an address, in the course of which he referred to the influence of Ruskin, William Morris, and others in creating a conscience in matters of art. He said that, although the movement which began with them still grew in strength, the forces which made for ugliness were still powerful. Commercialism was destroying the countryside with jerry-built bungalows, with blatantly vulgar petrol stations, with monstrous advertisements. The demand for swift traffic had ruined hundreds of wooded lanes and turned them into broad and featureless roadways. Pylons were in contemplation which would disfigure country downs, electric power stations were rising which threatened to increase the pall of smoke over our great cities. Local authorities still felt it quite natural that one of the fairest stretches of the Thames bank should be suggested as a suitable site for a sewage farm.

The Church had an unrivalled opportunity of taking the lead in setting a high standard of artistic excellence. Zealous, but ill-instructed restorers had sometimes worked more fatal havoc than the deliberate iconoclast. The interiors of some of the best of their churches were damaged, sometimes half ruined, by tasteless colour and inartistic ornaments and furniture. Clumsy and heavy reredoses, garish tiles and carpets, pretentious pulpits and ridiculous lecterns, hangings and curtains drab in colour, stamped by machine-made ecclesiastical designs, windows with insipid and unreal figures, colours on the walls and floors which were in violent discord, cheap and conventional vases and lamps were found in many of our churches and made persistent progress against the worship of God in beauty as well as in holiness. For their sins against beauty they should sometimes have litanies of penitence.

# PRIMROSE COLOURED DISTEMPER.

In selecting a distemper recently for a special situation for which I called in a consulting analyst I learnt that primrose coloured distempers usually owe their tint to chromate of lead, which in the case in question entirely ruled out such material. My impression had been that ochre, which is a particularly staple mineral, was the colouring matter used for these light tints and I draw attention to my discovery in case there are others equally ignorant. Yellow chromate of lead turns orange when mixed with strong sulphuric acid, and I attempted to use this fact as a test on a sample of distemper. The amount, however, was apparently too small to be particularly affected. There are, however, several simple tests for the presence of lead. ALAN G. MUNBY [F.].

MR. H. C. BRADSHAW [F.].

The Council and Senate of the University of Liverpool have agreed that the honorary degree of Master of Architecture be conferred on Mr. H. Chilton Bradshaw [F.], Secretary of the Royal Fine Art Commission.

# THE R.I.B.A. ANNUAL DINNER.

A full report of the R.I.B.A. Annual Dinner will be published in the next issue of the JOURNAL on 7 June.



## William John Locke [*Honorary Associate*].

(SECRETARY R.I.B.A., 1898-1908).

BY SIR JOHN W. SIMPSON, K.B.E., P.P.R.I.B.A.

Locke's literary success has made his work at the Royal Institute, from the viewpoint of his vast number of readers, but a secondary incident of his life. It was nevertheless of considerable importance to the members of the Institute, and especially to those of junior rank. His predecessor had been a Fellow, a man of much ability and the author of treatises on "Architecture and Public Buildings, their relation to School, Academy and State in Paris and London," and on "The Architect and his Artists," both of which contain excellent matter of permanent value. But he put forward therein views on controversial subjects which, while entitled to urge them as a professional member, he would have, perhaps, been better advised not to express publicly in view of his position as the paid official of both the contending parties. For this and other reasons the Council decided, when appointing his successor, that the secretary of the Royal Institute should henceforward be a layman.

Their choice fell upon William John Locke, then a young man of thirty-five, who had taken (curiously enough, for he loathed the subject) mathematical honours at St. John's College, Cambridge; and become mathematical master at Glenalmond.

Nothing could have been more happy than the result of the Council's decision. The new secretary conceived a great liking for the architects, and a lively admiration of their achievements. They returned his affection, and found that the gay courtesy with which they were now welcomed to Conduit Street covered a wise and most helpful judgment in their difficulties.

During a period of ten years he held the office to which he had been appointed, and filled his spare time by writing novels, producing one every year. Reflecting the charm of his own joyous outlook on life, they proved very acceptable to those who loved a good story and wanted it told in scholarly English. With his ninth book, *The Morals of Marcus*, came such sweeping success as brought him to the parting of the ways. He chose the path of letters, leaving the Royal Institute with heart-felt regret both on his part and on that of the Members, who made him an "Honorary Associate" in acknowledgment of his services.

Born on 20 March 1863, he died in Paris on Thursday, 15 May, at the age of sixty-seven. Our community has to mourn the loss of a charming, widely read, and kindly gentleman. His death, as Johnson said of Garrick, has "diminished the public stock of harmless pleasure."

"Is not harmless pleasure very tame?" said Boswell,

"Nay, Sir," was the answer, "harmless pleasure is the highest praise.—To be able to furnish pleasure that is harmless, pleasure pure and unalloyed, is as great a power as man can possess."

A Memorial Service for Mr. Locke took place at the Church of St. Martin-in-the-Fields, Trafalgar Square, on Tuesday, 20 May. The officiating clergy were the Rev. A. Morrison (rector of Marylebone), Bishop Russell Wakefield, the Rev. W. H. Hornby Steer, and the Rev. Pat McCormick. The 91st Psalm was sung as a solo by Mr. John Brownlee, and at the close of the service Chopin's Funeral March was played. The family mourners were Mrs. William J. Locke, Miss Sheila Locke, Miss Cordelia Locke, and Mrs. J. W. Locke. There was a large congregation which included many Members.

## The Library

LA CITE JARDIN. Edited by Jean Virette. 40. Paris. [1929.] [Librairie Nouvelle de l'Architecture et des Beaux-Arts.] £1 21. 6d.

The five "garden cities" illustrated in this work differ considerably from each other, but have certain characteristics in common. These relate principally to the French attitude towards hygiene. Bathrooms are frequently entered from the *salon à manger*, even when they could have been easily approached from a passage. Sanitary pipes are presumably generally carried down within, for none are apparent in any of the exterior views. Another instance of the greater freedom of the French architect is in relation to the staircases, where the steps frequently dance most of the going, thus producing greater equality of tread than our habit of straight steps with triangular winders at the end of the flight. It is to be assumed that stair carpets in these houses are the exception.

The houses of the "garden city" of Plessis-Robinson, Dept. Seine, are entirely flat-roofed. Those of Ungemach, near Strassbourg, are based on an older tradition, the roofs are steep and extremely effective. As the houses here include a cellar-basement storey, they can be built up to the public way without loss of privacy, for the window-sills are above the heads of passers-by. The front doors are approached by flights of steps, sometimes duplicated and with elegant iron railings, so the whole effect is one of unusual dignity compared to an English house of the same class. F. H. M.

SMALL HOMES OF ARCHITECTURAL DISTINCTION. Sm. 40. New York and Lond. 1929. [Harper and Bros.] 18s.

This inexpensive but very comprehensive American publication contains 240 examples of very unequal merit. Some, however, and more especially the plans, are of value. The architects' names are not given, but, according to a preliminary statement, "the completed houses illustrated in this book have all been built from the technical services supplied by the Architects' Small House Service Bureau." Photographs and perspective sketches supplement the dimensioned plans and descriptive text. B. O.

INDISCHE GÄRTEN. By Marie Luise Gothein. (Die Baukunst.) Sm. 40. Berlin, etc. [1930.] [Drei Masken.] 121. 6d.

This is a German work illustrating gardens in architectural settings. There are photographs of palace courtyards and parks but the bulk of the illustrations are taken from Indian pictures which are of exceptional interest.

A few plans are added showing the general set out of the gardens in relation to the buildings. A. E. H.



## Isometric Drawing of St. Paul's Cathedral



The illustration of St. Paul's Cathedral appearing on this page is a miniature reproduction of Mr. R. B. Greaves' isometric drawing which was recently published by *The Architectural Press*. Some idea of the proportions of the original drawing may be gathered from the fact that this reproduction is barely a five-hundredth of its size, while the published collotype prints which were reduced in size as much as was possible without risk of loss of detail are approximately fifty-four times the size of this miniature. (See notice on p. xvii.)

The Council of the Royal Institute has arranged to celebrate

the reopening of St. Paul's Cathedral on 25 June, after many years' reconstruction work, by a Special General Meeting on Monday, 23 June next, at which a lecture dealing with the Restoration of the Cathedral will be delivered by Captain C. Stanley Peach [P.], and Mr. W. G. Allen [P.]. The lecture will be illustrated by slides and by an exhibition of models, masonry specimens, drawings, and photographs, which will remain open till 28 June.

The General Meeting will be preceded by a Council Dinner at which it is hoped that the Archbishop of Canterbury, the Bishop of London, the Dean of St. Paul's and Canon S. A. Alexander will be present, together with representatives of the City of London and the architects who have been associated with the work in recent years.



## Discussion on Annual Report

A discussion on the Annual Report of the Council was held on Monday, 12 May, 1930, the President, Sir Ranister Fletcher, F.S.A., in the Chair.

The PRESIDENT: I have now to present to you the Report of the Council and Standing Committees for the official year 1929-30, and to move its adoption by this Annual General meeting. The Chairman or other representatives of all the committees whose reports are appended to the main Report have been asked to attend this meeting, so as to be in a position to answer any questions that they may be asked in connection with their reports.

Mr. KITSON (Hon. Secretary): I beg, formally, to second the motion.

The PRESIDENT: This Report is now open for discussion, and I hope that any of you who have anything to say will say it now.

Mr. GILBERT H. JENKINS [F.]: I would like to express the appreciation of an ordinary member of the Institute of the enormous amount of work which is here shown to have been done by the Council and its Standing Committees and the other committees; and if I have one or two questions to ask with regard to the work of these Standing Committees, I would like to make it quite clear that I do it in no sense of adverse criticism, but merely because I think that the ordinary member would like to be informed upon one or two points in connection with the work of these Committees.

The other point I would like to bring to your notice is this: that I am sure the General Body of the Institute would be very interested to hear what is the position of the Contract Form at the present time. We were not prepared to accept a contract which we did not consider we should advise our clients to sign. We are interested to know that, if possible, an agreed contract will be arranged with the builders, a form of contract which we can advise our clients to sign. Therefore, I think the general body would like to hear, from the Practice Committee, as to how far we are on with the negotiations.

My next point has reference to the Report of the Competitions Committee. It is a small point, but it might be useful. It is on page 417 of the Journal, where it says: "It would be of great assistance to the Committee if members would realise the importance of forwarding at once copies of all conditions of competitions being promoted"; but, surely, that is not quite the attitude which the general body of the members should take up. If a competition is being promoted anywhere in the country, it would be to the advantage of this Institute that the member hearing about it should immediately report to the Institute that a competition is about to be promoted; the Institute should then forward to the Committee promoting that competition, before they issue any conditions, the rules it is necessary to observe in order that a successful competition can be conducted. That would save many of these ignorant promoters from getting off the rails and having to be put back on them. And it seems to me that it would be a great advantage if that were done, both to the Institute and to the community generally.

My third point is in regard to the Building Act Committee. In the last clause reporting on that it says: "Considerable interest in the reform of the London Building Acts is being taken by other interested bodies; and this Committee has from time to time been able to co-operate usefully with them." In practising in London we know that the Building Act is getting out of date, in fact it is badly out of date; and one wonders whether it is not time for the Institute to co-operate with other professional societies in London to endeavour to get the London County Council to bring this Act up to date.

And there is another point, Sir. One has heard that several

rather big shopkeepers, the people who run the great general stores in London, have been putting their heads together to know whether something cannot be done to prevent a repetition of the sort of thing which happened at Swan and Edgar's. One wonders whether it is not the time to get this Institute to move in the matter of getting the London Building Act up to date.

I hope you will consider that in regard to any of the remarks I am making I am not in any degree cavilling at the work of the Standing Committees. When I was at the Architectural Association I had the honour to represent them on the Council, and I do appreciate, and have from that year that I sat there, the enormous amount of work that is done by the Council and Committees; and I should be the last person to desire that the impression should get abroad that the general body of the Institute was not being well served by the Council and by its Committees. And I shall have great pleasure, if such a thing is possible this evening, to propose a vote of thanks to the Council and its Committees for the work they have done and for the Report which they have given us.

The PRESIDENT: I am sure we are very much obliged to Mr. Jenkins for bringing these matters before us, and for the kind and pleasant way in which he has referred to them. The first point was that of the Contract, and I think I will ask Mr. Tatchell to deal with that.

Mr. SYDNEY TATCHELL [F.]: Speaking on behalf of the Practice Committee, I am sure every member of it will greatly appreciate Mr. Jenkins' generous comments on their work. Speaking as Chairman for the time being, I would express my own deep appreciation of the work done by its members, and particularly by the two Honorary Secretaries.

The position with regard to the form of Contract is that negotiations are now proceeding. These have been and still are entirely unofficial, and were initiated with the sole desire to endeavour to come to a friendly arrangement with the contractors. It seemed disastrous that there should be any conflict between the two important partners in the building industry upon a matter which would appear to be capable of being settled by ordinary common sense, and some of us initiated informal discussions and conferences. Arising out of those, a draft Form has now been prepared. That draft was not prepared by a mere one or two or three, but is the result of co-operative work by every member of the Practice Committee. It has now received their unanimous approval, and has gone to the National Federation with an expression of hope that they may find it acceptable. We expect that minor corrections will be made, but we hope that the broad lines of it will be accepted. We have urged the builders to consider it with a view to the very important issues involved in the document, and not to examine it through the lens of a microscope. And I, personally, am very hopeful that the document may be returned by the Federation, possibly with corrections which may be considered by the Practice Committee. When the Practice Committee have considered those corrections we hope to pass it to the Council with a recommendation for their approval. That information which I have just given you, gentlemen, I ask you to regard as confidential for the time being, having regard to the present state of the negotiations.

The PRESIDENT: I am sure we are all delighted to think that Mr. Tatchell and his hard working Practice Committee have produced something which may be acceptable to our friends the builders. I am sure that if this can be brought about while I have the honour to be in this Chair, I shall feel extremely gratified that the Practice Committee have been able to produce a document which also is acceptable to the building community.



Mr. C. E. ELCOCK [F]: I think we agree that it is a very good suggestion that Mr. Jenkins has made, that members of the Institute should advise us, at the earliest possible date before the Conditions have been published, and we are much obliged for the suggestion.

The PRESIDENT: Yes. We can put something in the JOURNAL about it, perhaps. The other point was about the Building Act, and Mr. Searles-Wood will perhaps answer that.

Mr. H. D. SEARLES-WOOD [F]: The position is this: that the London County Council have to get the Consolidating Bill made into an Act before they could attempt to deal with the new Building Act. They have now got that Act through, and I have seen Mr. Topham Forrest recently, and he assured me it is going on, and will be brought out as soon as possible. We have sent in our suggestions, and they have received very favourable consideration, and I hope that before long we shall see the result.

Mr. LOUIS BLANC [L]: I have been able to get two members of the London County Council to become members of this Building Act Committee, and I think that should help us. And we are also on excellent terms with the Chairman of the Building Act Committee, who has corresponded with us in a nice manner.

Mr. J. E. FRANCK [F]: Mr. Chairman, I should like to speak on the Science Standing Committee, whose Report is on page 414. The reference is to the representatives of the R.I.B.A. and its various Committees, and the British Engineering Standards Association. There are a very large number of members of the Institute who are represented on the various committees. I happened to be the representative of the Institute on the main body, under their new Charter, and I should like to draw the attention of the members of the Institute to the activities of the B.E.S.A. They are, through their new powers, interesting themselves very materially in building work, but they are not allowed, by their Constitution, to take up specifications on the recommendation of other professional bodies, such as the Civil Engineers, the Mechanical or the Electrical Engineers, or the Royal Institute of British Architects. Those requests for a standard specification must come from the body of manufacturers or trade body who are interested in the particular article that they are producing. But they would be most pleased, and they would welcome any action that the R.I.B.A. could take, to induce manufacturing associations to ask the B.E.S.A. to take up various standard specifications of material which we use.

I want to make it clear at the outset that those specifications will not interfere in any way with the taste or artistic peculiarities of the profession: they are simply to enable them to know that if they specify an article as B.E.S.A. standard, that article will possess certain specific qualities which will enable people to know that it represents the B.E.S.A. standard, and that the article is one which they can safely use on a building. The B.E.S.A. is working in conjunction with the Building Board of Research: they are also working in conjunction with many others. But they are also doing this: they are working in conjunction with the Governments of the Colonies, because the Colonies have set up these standards for building material, apart from engineering material; and it means if they can get an agreed specification on any building material they would assist most materially in the trade of the country. Take just an item in illustration. If you can get an agreed specification for a tap or a cock in a house which is passed by the authorities in England, and also agreed by the authorities in Australia and Canada and in other countries which have nothing whatever to do with the British Empire, it means manufacturers can make to stock and produce for us. It is very interesting because in this connection the Board of Trade have given, and are giving, a large sum of money, which com-

menced at £3,000 a year and will probably go to £8,000 a year: they are giving to the B.E.S.A. a grant of that amount annually, so that these specifications of materials can be translated into languages all over the world. That is to assist British trade, and it would be of great assistance to the B.E.S.A. if the Institute, as a body, were to ask bodies of manufacturers or others who are interested with us, like the London Master Builders, to apply to the B.E.S.A. for the standard specifications. I mention that because it has been particularly drawn to my notice over various matters which have come up for consideration on the main committee.

Mr. W. GILLBEE SCOTT [F]: I have very few remarks to make, but one or two points in the Report have caught my notice. On page 396 I notice that in 1929 3,219 probationers were accepted, and that in 1930 3,787 probationers were accepted. No doubt, from one point of view, that is of interest and value to the Institute; but whether it is of value to the profession is, I think, quite another matter. That is nearly 7,000 probationers admitted in two years.

The SECRETARY (Mr. MacAlister): That does not mean new probationers, it is the total; it includes probationers admitted many years past.

Mr. GILLBEE SCOTT: I am very glad to hear the explanation: I was horrified.

The PRESIDENT: I am sure we are all very glad.

Mr. GILLBEE SCOTT: I wondered how these poor young men can expect to get a living in the profession. I think our architectural schools, the A.A., and all the universities are anxious, and naturally anxious from their point of view, to get in a lot of students and to pass them creditably. What happens to the young men in the future is not the concern of those schools. I think we are getting far too many men in the profession, and I do not think it is good policy for the profession to encourage architectural schools too much. I am not saying a word against the schools, they do their work well, but there is only a limited field for employment, and the result is that by getting too many men in, they drift off and become time architects to the different trading societies and stores, all anxious to get a living somehow. They go to the municipal authorities and become nominally assistants, and they design their swimming baths and town halls, etc., at a small salary. It is because the profession is so overcrowded, and that these young men must live somehow, that they accept these positions and so damage the profession as a whole. Perhaps the Board of Education may have something to say.

There is another point. I see that on page 397 it is stated that we gave £750 to the British School at Rome. I have no doubt it was very wisely and very well spent, but I have no idea what result the Institute gets from that expenditure. Why is that money spent, and what are the returns, in an architectural sense, that the Institute gets from that outlay? As I say, I have no doubt it is very good indeed, but nothing in the Report explains it.

The PRESIDENT: We are obliged to you, Mr. Gillbee Scott.

Mr. L. SYLVESTER SULLIVAN [F]: To deal, first of all, with Mr. Scott's point about the overcrowding of the profession, I do not think he need be worried about that; I do not think there is any evidence that there are more people coming into the profession than there were; the evidence rather is that they are coming into the Institute. I think more people are becoming members of the Institute than formerly, and we are getting them younger; and I think they are coming to us increasingly through the schools.

I do not know whether that answers his point sufficiently.

With regard to the school at Rome, the item is for the maintenance and education of the scholars in Rome.

Mr. E. STANLEY HALL [F]: As to the schools and the



desire of the schools to capture as many scholars as possible, I was President of the Architectural Association some years ago, and there is one thing the schools do which I do not think private architects ever do, and that is, they tell students when they consider they are not fit to be students of architecture.

Mr. H. V. LANCHESTER [F.]: I disagree.

Mr. MAURICE E. WEBB [F.]: I also spoke.

Mr. HUGH DAVIES [Hon. A.]: I should like to offer one or two words on the Report of the Science Standing Committee. It has already been referred to, but as one who has been interested so much in this particular aspect of education, I should like to say with what pleasure I noted the wide range of activities of the Committee. The importance of it we have already understood from what Mr. Franck said to-night. The specification of materials is a matter which is becoming increasingly important. And from the theoretical side science has become an important element in architectural training. That, in itself, may be one reply to those who think that the architectural profession is hardly big enough to contain the increasing number of pupils—if it is an increasing number—who come into it. The present Chairman of the Science Standing Committee is largely responsible for the establishment of the Building Research Board. It was he who, at a time when the official attitude was not so sympathetic as at present, came from the Local Government Board (as it was at that time), and advocated the setting up of this organisation.

Mr. H. D. SEARLES-WOOD: There is one aspect which I would call Mr. Gillbee Scott's attention to, and that is, that though we have a large number of students studying architecture, and many of them do not become architects, they are still members of an educated public, and the result of such studies cannot but be good. In another institution to which I belong we always consider that although we only pass about 50 per cent. of the candidates who sit for sanitary qualifications, still, the fact that attention has been directed to the principles of sanitation means an educating of the public generally on those matters. It is much the same with regard to the schools.

Mr. FRANCK: I omitted to mention one thing in my remarks just now, Sir, and that is, that I see that the Science Standing Committee are considering the question of a grant to the B.E.S.A. and I hope they will continue that grant, and that in the immediate future financial assistance will be given to that Association, because the funds we give are small in comparison with those given by the various manufacturing associations. If I were to give the figures of some of them you would see that. I appreciate that they receive more immediate results from their money; it is granted to the Sectional Committees which produce agreed specifications which are of immediate interest to the manufacturers and in the obtaining of overseas business. But still, I hope that this Institute will see its way to continue the grant, which is a small one, but which will enable them to be recognised as an authority and as a voice which should be expressed in the determination of certain things which are of very material interest to this body.

Dr. RAYMOND UNWIN [F.]: The Science Committee have been allotted an annual sum for the various grants which they make under the new arrangements, and they have allotted 60 per cent. of that grant this year to the B.E.S.A., and I think that is a very substantial proportion, and a fair sum compared with that of other professional bodies like ourselves, who have not a definite financial interest in the work.

Mr. GILLBEE SCOTT: One thing I omitted to mention. Mr. Jenkins made general remarks about his admiration for the work done by the Council and all the Committees, and I

would like to say how entirely we—and I know I am now expressing the feelings of all the members—endorse that.

Mr. FRANCK: Following those remarks of Mr. Gillbee Scott, I would like to propose a most hearty vote of thanks to our Staff, from Mr. MacAlister downwards. I am sure that the work they give us is really most self-sacrificing in every possible way, and no words of mine could convey the thanks the Institute feels to every one of them. I am quite certain of this, that we are deeply indebted to them for all the work they do for us, and which we can never pay for. I am sure every member will join me in proposing a hearty vote of thanks to them for their services during the past year.

Mr. TATCHELL: May I have the privilege of seconding that resolution? As Chairman of the Practice Committee, I can speak with knowledge as to the amount of work which has been done by the permanent Staff of the Royal Institute. Mr. MacAlister is always a tower of strength, as is the Assistant Secretary, Mr. Spragg, with whom my Committee has much to do.

Mr. E. C. BEWLAY [F.]: I would like to add my word of most hearty concurrence with those expressions.

The PRESIDENT: I think we had better assume we are all ready to join in these expressions, otherwise we shall carry this on and make a very long meeting of it.

The resolution was carried unanimously.

Mr. MACALISTER (Secretary): It is my duty to try and answer for the Staff. Whatever may be true of myself, I know that what has been said of the rest of the Staff is no more than the truth. It is a permanent wonder to me how Mr. Spragg gets through the work he does, and still look well and placid and cheerful. The work seems to increase month by month, yet he tackles it. The same is true of Mr. Haynes; he has got an enormous machinery to control, yet it does not weigh him down. And as regards Mr. Baker, our one endeavour has to be to prevent him killing himself by overwork. My remarks also apply to the others. I thank you most sincerely on their behalf.

Mr. F. R. JELLEY [A.]: Before this meeting closes, may I ask if it is necessary that examinations of this Institute should be held on Armistice Day? I do not think it is fair to the candidates, and it is not fair to the names on the notice-board outside here.

Mr. SYLVESTER SULLIVAN: I think that was merely an oversight; it will be looked into.

The PRESIDENT: Is there any other business? If not, I ask you to vote on the resolution.

Carried unanimously.

Mr. JENKINS: Before the meeting terminates I would like to submit, formally, my resolution that the thanks of the members be tendered to the Council and its Committees for the work they so brilliantly do for us. I think Mr. Gillbee Scott has already seconded that motion, and therefore I will put it to the meeting, as you, Sir, clearly, would not care to do so.

Carried by acclamation.

The PRESIDENT: I am sure the Committees thank you very much for those kind words, and I am sure it will give them a feeling of great satisfaction to know that their activities and labours are appreciated by the general body of the members.

The list of attendances at the Council and Standing Committee meetings has been laid on the table and will be printed in the next issue of the JOURNAL, and also will be sent out to members with the voting papers.

And now I come to a very pleasant duty, and that is to move a hearty vote of thanks to Mr. E. J. W. Hider, Fellow, and Mr. Robert W. Pite, Fellow, for their services as Honorary Auditors for the past year. As you know, looking through the Accounts



is not a very pleasant occupation, and Mr. Hider and Mr. Pite have carried out their work very carefully, and I think we owe them a very hearty vote of thanks for taking up this work.

This was carried.

Mr. E. J. W. HIDER [F.] : Mr. President and gentlemen, our little labour of love is of course a labour, but it is made very pleasant and very happy for us by the remarkably lucid way in which your Accounts are put before us by your Accountant and by your Staff; we have very little to do except tick things. And if our effort to make the Report as interesting

as possible has pleased you, we are very happy and satisfied. Thank you.

The PRESIDENT : And, of course, we are very much obliged to Mr. Saffery, the official Accountant. He has been doing our work now for a good number of years, and we hope he will go on for many years more.

Mr. E. J. W. Hider and Mr. G. Ronald Topham are both eligible and willing to be nominated as Honorary Auditors for the current year, and if it is your pleasure, I beg to move that these gentlemen be so nominated.

Agreed.

## Allied Societies

*(The attention of Members of the Allied Societies is particularly called to this page)*

### BERKS, BUCKS AND OXON ARCHITECTURAL ASSOCIATION.

About seventy members and friends of the Berks, Bucks and Oxon Architectural Association visited Abingdon on Saturday, 26 April, when the annual meeting was held in the Council Chamber. The Hampshire and Isle of Wight Architectural Association were the guests of the local Association and the party left Reading by motor coaches in the morning, journeying through Pangbourne, Stratley, Blewbury, Upton, Harwell and Steventon. On arrival at Abingdon, the members of the Berks, Bucks and Oxon Association proceeded to the Council Chamber for the annual meeting, while the guests inspected the Abingdon and Culham bridges, the Causeway and other scenes of interest.

At the annual meeting the report and balance sheet were adopted, and the following officers were elected for the ensuing twelve months :—President, Mr. H. Hutt (Berks); Vice-Presidents, Messrs. T. T. Cumming (Berks), E. A. Li Martyn (Bucks), T. L. Dale (Oxon); Hon. Secretary, Mr. E. Steward Smith (Berks); Hon. Auditor, Mr. C. B. Willcocks (Berks); Hon. Treasurer, Mr. T. T. Cumming (Berks); Members of the Council, Messrs. J. T. Saunders, J. R. Greenaway, A. Saxon Snell, W. R. Morris, A. B. West, F. E. Wapshott, W. J. Freeman, and S. E. Burrett (Berks), C. S. Kimpton, H. J. Stribling and W. D. Hartley (Bucks), H. W. Smith, G. L. Taylor and T. Rayson (Oxon).

Leaving Abingdon the party proceeded by coach to Dorchester, where by permission of the vicar, the Rev. H. G. Lancaster, the Abbey Church was visited, tea being taken at Benson at the invitation of the Berks Society. After leaving Benson, the members continued their journey through Nettlebed, Peppard, Emmer Green and Caversham back to Reading.

### HAMPSHIRE AND ISLE OF WIGHT ARCHITECTURAL ASSOCIATION.

A meeting of the Hampshire and Isle of Wight Architectural Association was held at the Conservative Assembly Room, Jewry Street, Winchester, on Friday 4 April, the President (Mr. J. Arthur Smith) in the chair.

The Hon. Secretary (Mr. A. L. Roberts) presented a report from the Council of the Association, which was unanimously approved.

A demonstration and lecture on the properties of Vita glass and the therapeutic value of certain of the ultra violet rays of light was then given by Captain A. R. Wood, head of the laboratories of Messrs. Pilkington Bros., glass makers, of St. Helena, Lancs, in place of Mr. McOnie, B.Sc., who was prevented by illness from attending. Captain Wood first spoke of the character of light, and showed how it could be split up into colours by means of a prism. The colours represented different wave lengths, which could be measured with complete accuracy. For many years it was suspected that there were other wave oscillations at each end of the visible spectrum,

Herschel, many years ago, discovered by means of wet blotting paper that there were heat rays at the red end of the spectrum, and these were now called the infra-red rays. In recent years the ultra-violet rays had been discovered at the other end of the spectrum. Among these ultra violet rays were some rays which covered but a small range of oscillation, but which had been proved by doctors to be of very great value to human and other life. These rays were, as it were, the cream of sunlight, that part of light which was of greatest value to life, and which provided or built up the necessary Vitamine D in living organisms. These very essential rays would not pass through ordinary glass. Glass was, however, now being made which permitted these rays to pass, and this glass was being used more and more in dwelling houses, etc. Many living organisms exhibited very striking improvements in health when this new glass was used. Captain Wood then gave demonstrations with this glass, and showed definitely that it did permit the passage of the ultra-violet rays while ordinary glass stopped the rays just as effectively as would a slab of slate or iron.

The members of the Hampshire and Isle of Wight Architectural Association paid a visit to the motor engineering works of Messrs. J. I. Thornycroft and Co., Ltd., at Basingstoke, on Friday 11 April. The party, numbering altogether between forty and fifty, arrived at the works about 11.30 a.m. Among those present were Mr. J. Arthur Smith, F.R.I.B.A. (president of the Association), Mr. A. L. Roberts, the honorary secretary, and Mr. Alban H. Scott, F.R.I.B.A., who designed the works. The party assembled in the laboratory and, at the invitation of Mr. Roberts, Mr. Scott gave a brief description of the works. He said they were started at Basingstoke in 1898, and the first two buildings put up were corrugated iron buildings which were taken down from the Chiswick shipbuilding yard and re-erected there. Since that time the works had developed very greatly indeed, and there were now about 1,300 hands employed. Referring to the layout of the works, Mr. Scott said there was a very large open yard through the middle of the site. It was 800 feet long by 60 feet wide. The machine shops were on the north side of the yard, the offices on the right of the entrance, and the erecting shops farther to the east. They were gradually getting rid of the corrugated iron buildings and replacing them with permanent structures, but that was a thing that could not be done all at once. A great point was the getting of the buildings all on one level. One shop was 360 feet long by 75 feet wide without any columns. The increased height of motor coaches and buses was a thing to be borne in mind, for they were now making some buses 14 feet in height.

The company were then, under the direction of Mr. Adamson, divided into parties of about eight and placed in the charge of guides, who conducted them round the machine shops, test house, power house, etc., and they finally witnessed a demonstration with two rigid six-wheelers on the trial ground. One of these vehicles was fitted with the Thornycroft patented non-



skid bands suitable for single-tyred vehicles. In the tests that were then made both vehicles were driven through deep holes set in such a position that both axles were articulated to their maximum positions. A steep gradient of 1 in 2½ was climbed with ease by both vehicles and afterwards a loaded trailer was drawn up the gradient by a special winch gear fitted to a heavy-type chassis after the vehicle itself had climbed the bank.

Shortly after 1 o'clock the company adjourned to the canteen, where tables had been laid for the luncheon. Mr. N. Endicott presided in the unavoidable absence of Mr. Tom Thornycroft.

Mr. J. Arthur Smith thanked Messrs. Thornycroft for their kindness in welcoming them there and for their hospitality.

#### LEICESTER AND LEICESTERSHIRE SOCIETY OF ARCHITECTS.

The fifty-seventh annual general meeting of the Leicester and Leicestershire Society was held on 1 May 1930, forty-one members being present.

The Honorary Secretary reported that the membership now numbered 151, an increase of seven over last year's total.

The following members were elected to serve as Officers and Council:—President, Mr. Walter Brand, A.R.I.B.A.; Ex-President, Mr. Albert Herbert, F.R.I.B.A.; Hon. Treasurer, Mr. A. F. Bryan, A.R.I.B.A.; Hon. Secretary, Mr. C. F. McL. Keay. Council:—E. T. Allcock, F.R.I.B.A.; W. Keay, F.R.I.B.A.; W. K. Bedingfield, F.R.I.B.A.; T. T. Sawday, A.R.I.B.A.; Full Members, W. Cartwright, A.R.I.B.A.; A. E. Smith, A.R.I.B.A.; Associate Members.

#### SHEFFIELD, SOUTH YORKSHIRE AND DISTRICT SOCIETY OF ARCHITECTS AND SURVEYORS.

The 42nd annual general meeting of the Sheffield, South Yorkshire and District Society of Architects and Surveyors was held in the General Lecture Room at the University, Sheffield, on 10 April 1930.

The President (Mr. C. M. Hadfield, F.R.I.B.A.) was in the chair.

The Annual Report was read by the Hon. Secretary (Mr. H. B. S. Gibbs, A.R.I.B.A.), and adopted.

The Statement of Accounts was presented by the Hon. Treasurer (Mr. J. R. Wigfull, F.R.I.B.A.), and approved.

The President brought the following resolution, which was passed unanimously, before the meeting:—

"That a junior section of this Society be formed in conjunction with a Students' Society of the Department of Architecture, University of Sheffield, for the purpose of the study of Architectural Design and Construction."

It was decided that a committee consisting of Mr. W. G. Buck (President), Mr. H. B. S. Gibbs, Mr. S. Welsh, Mr. E. A. Ashburner and one student from the Department of Architecture, with power to add, should act together and make the necessary arrangements for starting such a junior society.

A vote of thanks to the retiring President (Mr. C. M. Hadfield) was proposed by Mr. W. G. Buck and seconded by Mr. J. M. Jenkinson.

In the course of his reply Mr. Hadfield said: "Looking back on the last two years, I see nothing of outstanding importance to the accomplishment of which I can claim personal credit. There is the improved position of the Department of Architecture, and I think myself fortunate to have been in office when this has been brought about. I commend it to you as one of the most important of the responsibilities with which we ought to charge ourselves. Otherwise most of the big professional questions which seemed—two years ago—to be nearing a solution are still in the 'lap of the gods.' The Registration Bill has still to receive the assent of Parliament, but we can at least claim that most of those who opposed it on honourable and conscientious grounds have now declared themselves satisfied. The new Bye-Laws of the R.I.B.A., which

will enable us to meet the difficulties of those who, through no fault of their own, find themselves without formal qualifications, have still to receive the assent of the Privy Council. Last of all there is our own position as a professional body here in Sheffield, which we can hardly claim to have greatly improved in the last two years. As your representative in London, I have been brought into contact with representative architects from most important provincial centres, and I have had it painfully brought home to me that there is no existing parallel elsewhere to the conditions under which we architects have practised here in Sheffield during the last twenty years. In these days no one doubts the importance to a community of encouraging high standards of architecture, and I cannot think that the 100 per cent. monopoly of public work of every description by a public authority, ever growing in extent and power, and ever extending its sphere of activity, is any more in the interests of a city and of the art of architecture than in that of our own purely personal interests. If this state of things is to be altered you will have to bestir yourselves, or else, so far as architects are concerned, there will have to be written up over the approaches to Sheffield the words of Dante, 'All hope abandon, you who enter here.' There is only one remedy, and you all know what it is, and on every hand you can see its effects, and what unlooked-for results are accomplished by it, often against overpowering odds. That remedy, I need not say, is 'co-operation,' based on determination, faith, and mutual loyalty."

The election of officers for Session 1930-31 resulted as follows:—President, W. G. Buck, F.R.I.B.A.; Vice-president, J. E. Lancashire, Lic.R.I.B.A.; Hon. Treasurer, J. R. Wigfull, F.R.I.B.A.; Hon. Secretary, H. B. S. Gibbs, A.R.I.B.A.; Fellows:—R. Cawkwell, A.R.I.B.A.; J. M. Jenkinson, A.R.I.B.A.; H. I. Potter, A.R.I.B.A.; J. A. Teather, Lic.R.I.B.A.; J. C. P. Toothill, A.R.I.B.A.; S. Welsh, M.A., B.Arch., A.R.I.B.A.; Associates:—H. W. Inott, Lic.R.I.B.A.; A. M. Lusby, A.R.I.B.A.; F. H. Wrench, Lic.R.I.B.A.; Provincial Members:—C. F. Moxon, Barnsley; F. H. Bromhead, A.R.I.B.A., Chesterfield; E. H. Walker, F.R.I.B.A., Doncaster; Lt.-Col. J. E. Knight, Rotherham.

#### WEST YORKSHIRE SOCIETY OF ARCHITECTS.

Mr. G. H. Foggitt, President, occupied the chair at a meeting of the West Yorkshire Society of Architects, held in Leeds on 10 April, when the Rev. Canon W. Thompson Elliott, Vicar of Leeds, gave a lecture on "Liverpool Cathedral."

The lecturer first gave a brief history of the enterprise. This began with the acceptance of a design by the late Sir William Emerson. This, however, was finally abandoned, and, after years of delay, a second competition in the successful design being the work of Giles Gilbert Scott, which has already been partially executed; a portion being completed and consecrated in July 1924. The lecturer showed, by means of lantern slides, the relationship of the already-executed portion to the contemplated whole, and dwelt upon the many characteristic features of the building.

The President, in moving a vote of thanks to the lecturer, remarked that he remembered hearing that when the architect was asked by the building committee what buildings he had erected, he replied that up to that moment he had but executed a firework pipe rack, he being then only twenty years of age. It was remarkable to realise how many alterations for the better had been made upon the original scheme.

The lecturer, in reply, said that he sincerely hoped that Sir Giles might live to see the completion of his wonderful conception.

#### YORK AND EAST YORKSHIRE ARCHITECTURAL SOCIETY.

The annual dinner of the York and East Yorkshire Architectural Society was held in the Royal Station Hotel, York, on 3 April. Mr. G. Dudley Harbron presided, and the chief



guest was Sir Banister Fletcher (President of the Royal Institute of British Architects).

Mr. F. J. Horth (vice-president, York and East Yorkshire Architectural Society), proposing the toast of the "City of York," hoped the city would maintain its wonderful traditions. They were looking forward to the development of York, and they wanted to see the city standing in its proper light.

The Lord Mayor (Alderman C. W. Shipley), in his reply, spoke of the endeavours of the City Council were making to preserve the antiquities of the city.

The "Royal Institute of British Architects" was submitted by Mr. Kenneth Ward, L.R.I.B.A. (vice-president of the York and East Yorkshire Society).

Sir Banister Fletcher responded, and said York reminded him of the olden times. He recalled the Emperor Hadrian, a man who, 1,800 years ago, travelled a great deal in this country. People came from all parts of the world to look round the mediæval walls of York, and it did not need an architect to appreciate York Minster, which gripped them with its vastness and admiration for its fine art. In York there was a beautiful and unusual Guildhall, and whenever he came to York he always went to see the timber construction in that remarkable building. In the city were many beautiful churches, and there were extraordinary mansions of the Mediæval, Tudor and Renaissance style within the borders of the society. It was easy to destroy, but it was difficult to replace. If the city belonged to an American, or a group of Americans, the first thing they would do would be to preserve its ancient buildings and keep up the tradition of its fine architectural remains.

Sir Banister Fletcher alluded to the Institute as a great Imperial federation, and they tried to maintain the traditions of art and architecture in all parts of the British Dominions. The Institute were obtaining new Bye-Laws to enable them to gather in their ranks all qualified architects, and it would be a step to the registration of architects. He pointed out that economic and artistic designs were wanted, and added that he did not know why York had not a school of architecture. On the elevation of buildings, he said it was of the greatest importance that taste and design should be under control. They would be controlled under the new Town Planning Acts in the Rural Bill of Sir Hilton Young. Panels of architects were being formed. It was a good thing that elevation of buildings, particularly in places like York, should be controlled and kept within the character of the places in which they are erected. If York followed other cities, it would consult the panel of architects.

Mr. G. H. Foggitt, president of the West Yorkshire Society of Architects, proposed the toast of the York and East Yorkshire Architectural Society, and said the society in various ways stood for art, and was largely for affording educational facilities. Other aims were the cultivation and maintenance of a high standard of professional conduct and the provision of social intercourse.

The President (Mr. G. Dudley Harbron, F.R.I.B.A.), replying, said: "That the past year had been an eventful one in the history of the Society in that they had had a visit from the British Architects' Conference to York in June. The Corporation and citizens of York had done everything to make the event the success it was. The student members of the Society had distinguished themselves in recent years—one being now at the British School at Rome, another holding a Maintenance Scholarship, and a third was among the prize-winners at Liverpool University (this last had that day sailed for the United States). He hoped that their absence would only be temporary, and that the influential in the country would appreciate that they had architectural talent in their midst, and give such merit the employment it deserved.

"The most disturbing feature, so far as he was able to judge, was the great transfer of work from the hands of the private practitioner into those of public officials. He regretted this seemingly inevitable tendency. That tendency was the more

regrettable when it was considered they appeared to be on the threshold of a period of considerable activity, when the face of our cities would change from the character they had had stamped upon them by the nineteenth century, to something healthier and more pleasing, which they hoped would mature before the close of the twentieth century. Any improvement in the architecture of the country was traceable to the activities of the single-minded independent private practitioners, and if official architecture showed corresponding improvement, it was because the officials themselves had been recruited from private practice. As private practitioners, it was essential that the public should take an intelligent interest in art, and it was disappointing to find that singularly few persons appeared to realise that any other building other than the parish church was worth a visit or capable of being made beautiful without expense."

Mr. J. S. Syme gave "Our Guests," and the Sheriff of York (Councillor G. W. Halliday) replied.

In addition to those mentioned, there were also present the Lady Mayoress, Mrs. G. W. Halliday, Lady Banister Fletcher, Mr. Ian MacAlister (secretary of the Royal Institute), Mr. E. A. Pollard (vice-president of the Society), Mr. E. A. S. Benny, Mr. R. T. Cotterill and Mr. R. Jackson (honorary secretary of the Society).

## Obituary

DR. ALBERT VON LE COQ (*Hon. Corr. Member*).

The death of Dr. Le Coq, the German explorer and archaeologist, is reported in Berlin at the age of 69. He will be remembered chiefly for his researches in the little-known territories of Turkestan during his expeditions of 1924 and 1926. He was awarded the gold medal of the Order of the Hospital of St. John of Jerusalem in England for conspicuous bravery in saving the life of an English officer on the Turkestan-India mountain road in 1926. His only son died in action in France.

His greatest publication was *Buddhistische Spätantike in Mittelasien*, in four volumes; another work, *Buried Treasures of Chinese Turkestan*, translated into English by A. Barwell (1928), is in the Institute Library, and throws light upon the monuments of that remote country of which little has been written. A publication by his companion in the second expedition, Professor Albert Grünwedel, *Altbuddhistische Kultstätten in Chinesisch-Turkestan* (1912), is also in the Institute Library.

JOHN BRYAN NISBET [L.]

John Bryan Nisbet, born in the parish of Kilmaurs, Ayrshire, in 1863, he was educated and trained in Edinburgh. On the completion of his school course he was apprenticed to Messrs. Sutherland and Walker, a well-known firm of architects of that day in Edinburgh. On the termination of his apprenticeship he served on the staffs of well-known architects in Edinburgh, Glasgow, and in the provinces, notably Messrs. Kinnear and Peddie, and Mr. J. G. McLachlan, Edinburgh, besides being for a time on the staff of the Edinburgh City Architect. He began to build up a business of his own, but the outbreak of the Great War for the time being blotted out his prospects and he became a Supervisor under the War Office. When peace came he undertook the supervision of the erection of several of the housing schemes under the East Lothian County Council. Resuming the threads of the connection he had been building up before the War, he acquired the business of an old, well-known Edinburgh firm, Messrs. Cousin, Ormiston and Taylor. Physical disability finally necessitated the disposal of such business as he had acquired. He died on 18 January, at the age of 67.



## Architects' Benevolent Society

The eightieth Annual General Meeting of the Architects' Benevolent Society was held in the rooms of the Royal Institute of British Architects on Wednesday, 14 May 1930, at 5 p.m. Sir Banister Fletcher (President) was in the chair. Others present included: Mr. H. S. E. Vanderpant (Vice-President), Mr. Charles Woodward, Mr. H. Austen Hall, Mr. Arthur Crow, Mr. Osborn C. Hills, Mr. A. Saxon Snell, Mr. A. J. Whitburn, Mr. H. G. Montgomery, Mr. E. Stanley Hall, Mr. T. C. Yates, Mr. Rudolf Dircks, Mr. C. H. Brodie, Mr. W. Henry White, Mr. Maurice E. Webb (Honorary Treasurer), and Sir Charles Nicholson (Honorary Secretary).

The Honorary Secretary read the eightieth Annual Report of the Council, from which we publish extracts:—

Subscriptions for 1929 show an increase over the year before, and amount to £1,251 3s. 2d. £296 14s. 4d. has been received in donations. Among the larger donations received during the year may be mentioned £25 from Mr. P. H. Adams, Mr. Graham C. Awdry and Mr. Maurice E. Webb (in connection with the Allied Societies' Appeal); £21 17s. from Mr. A. Saxon Snell; £15 15s. from Mr. Arthur Ashbridge; £8 from Mr. A. McGibbon; £7 17s. 6d. from the Northamptonshire, Bedfordshire and Huntingdonshire Architectural Association; £5 5s. from each of the following: Mrs. E. P. Howard, Mr. H. S. Chorley, Mr. A. C. Conrade (whose drawings and paintings were exhibited in the R.I.B.A. Galleries in February), Mr. A. E. Kirk, the Tees-side branch of the Northern Architectural Association, Mr. J. C. Procter, the Tylers' and Bricklayers' Company, Mr. W. F. Sargisson, Mr. T. Spencer and Mr. T. Butler Wilson; £5 was received from the Liverpool Architectural Society.

During the year an attempt has been made to enlist the co-operation of the Allied Societies in obtaining new subscribers and donors. A letter was sent to all presidents asking them to appoint stewards who would canvas for contributions those architects in their area who were not already members of the Benevolent Society. In nearly every case a local honorary secretary has been appointed. Canvassing is proceeding in most districts, but from its personal house-to-house nature it must necessarily be slow in showing results. We have, however, gratefully to acknowledge £29 14s. 6d. from the Berks, Bucks and Oxon Association, £12 15s. 6d. from the Essex, Cambridge and Hertfordshire Society, £20 3s. from the Leicester Society (eight new subscribers and one donor, and a donation through Mr. P. H. Grundy, from the Leicester Architects' Guild), £7 17s. from Liverpool (five new subscribers and two donors), £15 3s. from the Northamptonshire Association (twelve new subscribers and three donors), £6 6s. from the Northern Architectural Association (six subscribers), £10 11s. 6d. from the Tees-side branch of the Northern Architectural Association (twenty-five donors), £46 4s. from the West Yorkshire Society (twenty donors), 10s. 6d. from Birmingham (one new subscriber), and 10s. 6d. from the Wessex Society (one new subscriber).

In addition to individual subscribers some of the Societies have contributed through their Councils, and we have to thank the Hampshire and Isle of Wight Society for a subscription of £2 2s. made retrospective for two years, the Bucks Society for a subscription of £1 1s., the Northamptonshire, Bedfordshire and Huntingdonshire Society for a donation of £7 17s. 6d. (mentioned above), in addition to the £15 3s. from individual donors, the Tees-side branch of the Northern Architectural Association for a donation of £5 5s. in addition to the £5 5s. acknowledged above and the £10 11s. 6d. from individual donors, the Nottingham and Derby Architectural Society for a donation of £10 10s., the South Wales Institute of Architects for a subscription increased from five to six guineas and the York and East Yorkshire Society for a donation of £5. We record with gratitude the sum of £450 received from the Sheffield Society through their president, Mr. Charles M. Hadfield, who is a trustee of the Edwin Ogden Charitable Bequest, and recommended the Society for a grant.

A point to be noted, and to be gratefully recorded, about the cheque for £10 11s. 6d. sent through Mr. Arthur Harrison from the Tees-side branch of the Northern Architectural Association is that of the twenty-five new donors four are students.

In all the sum of £441 10s. 6d. has been received as a result of the appeal.

The Council have the pleasure to report that the Society's Insurance Scheme continues to expand. £460 was received in commission during the year, as compared with £340 in 1928. The Council wish to express their thanks to all members who have patronised the scheme, and hope they will continue to give it their support.

The President, in moving the adoption of the Annual Report and Balance Sheet said:—

"It gives me very great pleasure to move the adoption of the Society's Annual Report. The purpose of the Society, to help architects in distress and their widows and orphans, is one which must excite the sympathy of all of us and its prosperity is an object which, I am sure, we all have at heart.

"You will see from the report that we have made an appeal during the year to the Allied Societies for closer co-operation in the work of the Society, and the Allied Societies have responded generously. Applicants have been called on and reports submitted by their representatives, contributions have been received from their Councils and many new donors and subscribers have been enrolled from their list of members. This has been largely due to the efforts of the local honorary secretaries. The scheme has only started and the full effect of the appeal has not yet been felt. We hope in time, as a result of it, to have representatives of all the Allied Societies on our Council, and have already nominated two members, Mr. Francis Jones from Manchester, and Mr. C. M. Hadfield from Sheffield. Canvassing is still going on, and no doubt by next year we shall be able to welcome a very large number of new representatives from the Allied Societies on our Council.

"We have lost by death many supporters during the year, among whom I may mention Mr. H. Percy Adams, a man who took a great interest in the Society and gave liberally to its funds.

"I have great faith in the future of the Benevolent Society. It is founded on goodwill, for without the goodwill and generosity of the members of the architectural profession it would not exist, and it does an excellent work. Every year this work increases and every year, we are pleased to be able to say, the money at our disposal increases, too. This is largely due to the energy and enterprise of our Honorary Treasurer, Mr. Maurice E. Webb, to whom the Society owes much, and to our Honorary Secretary, Sir Charles Nicholson. I wish the Society prosperity in every way. I hope it will make great progress in the future. There is and, I am afraid, always will be, a great deal of distress in the architectural profession. We can help to lessen it by supporting our Benevolent Society and giving what we can for the relief of those of us who have fallen by the wayside."

The Council for the ensuing year was elected as follows:—  
*President*.—Sir Banister Fletcher, F.S.A., President of the Royal Institute of British Architects.

*Vice-Presidents*.—Mr. Walter Tapper, A.R.A., and Mr. H. S. E. Vanderpant.

*Council*.—Messrs. C. H. Brodie, Maxwell Ayrton, H. D. Searles-Wood, Sydney D. Kitson, Percy B. Tulhys, H. Austen Hall, L. G. Pearson, W. Curtis Green, E. C. P. Monson, E. P. Warren, F. R. Hiona, R. Dircks, Francis Jones (representing the Manchester Society), C. M. Hadfield (representing the Sheffield, South Yorkshire and District Society), E. Stanley Hall (representing the Architectural Association), and Arthur Crow (representing the London Society).

*Hon. Treasurer*.—Maurice E. Webb, D.S.O., M.C., M.A. Cantab.

*Hon. Secretary*.—Sir Charles Nicholson, Bart., M.A.



## Legal

### WILLCOCKS AND BARNES v. THE PAIGNTON CO-OPERATIVE SOCIETY, LIMITED.

(BEFORE THE LORD CHIEF JUSTICE.)

His Lordship on 7 April gave a reserved judgment for the defendants in this action tried before him at Exeter Assizes, in which the plaintiffs, Messrs. Willcocks and Barnes, builders, claimed damages for alleged breach of contract by the defendants, the Paignton Co-operative Society, Limited. The nature of the claim appears fully from the judgment.

Mr. H. du Parc, K.C., and Mr. F. A. Wilshire appeared for the plaintiffs; Mr. Croom-Johnson, K.C., and Mr. A. Inman for the defendants.

#### JUDGMENT.

The Lord Chief Justice read the following judgment:—

In this case the plaintiffs claimed damages for breach of contract to employ them to carry out certain works in Paignton. The material facts of the case may be briefly stated. The plaintiffs are builders and contractors, and on 28 November 1928, the defendants, by advertisement, invited tenders for the erection of certain premises, stating that applications for bills of quantities should reach the defendants' office not later than 4 December 1928. On 29 November 1928, the plaintiffs duly applied for bills of quantities, which were sent to them by the defendants' quantity surveyors on 6 December, accompanied by a letter saying that sealed and endorsed tenders were to be delivered to the defendants not later than 5 p.m. on 18 December, and that the priced bills of quantities, in a separate sealed cover with the name of the contractor written on the outside, were to be sent to the architects, Messrs. Bridgman and Bridgman.

The letter also stated that the bills would be returned unopened, in the case of unaccepted tenders, after the contract had been signed, and that plans, specifications, and conditions of contract could be seen at the offices of the architects during usual hours. These statements were repeated in the bills of quantities.

On 18 December the plaintiffs duly delivered a tender to the defendants, and delivered to the architects priced bills of quantities in a separate sealed cover with their name written on the outside as directed. On the same day, 18 December, at a meeting of the defendants' managing committee, it was resolved that the architects be asked to verify the plaintiffs' bills of quantities and to report thereon. In pursuance of this resolution the defendants' quantity surveyors on the following day (19 December) obtained the bills of quantities from the architects, and checked them, and returned them to the architects as correct. The quantity surveyors afterwards explained to the architects that they considered the tender was to be accepted, and for that reason obtained the bills of quantities from the architects' office and checked them.

On 22 December, at a special meeting of the defendants' managing committee, it was resolved that the architects be asked to include in their verification of bills of quantities those relating to the tender of Messrs. Melhuish and Berry, and that their reports be considered at a meeting to be held on 28 December. And at a special meeting held on 28 December it was resolved that the tender of Messrs. Melhuish and Berry be accepted.

#### AN INTERVIEW.

On 2 January 1929, Mr. Barnes, a partner in the plaintiffs' firm, called at the office of the architects and saw Mr. Bridgman. Mr. Barnes's account of what took place at the interview, which I accept, is as follows:—

Mr. Bridgman said that at a meeting of the co-operative committee they had decided to accept our tender. They

collected the bill of quantities from the architect and had it sent to the quantity surveyors to be checked. It was checked and returned to the architect as correct. He told me also that the co-operative committee met again and decided to accept the contract of another builder. He then handed back to me the opened bill of quantities. I told him that I did not think this was playing the game and that I should have to consult my partner.

Afterwards, on 4 January 1929, the architects informed the plaintiffs that a contract had been entered into with Messrs. Melhuish and Berry.

It was contended on behalf of the plaintiffs that the opening of their bills of quantities constituted an acceptance by the defendants of their tender, and that the return to them by the architects of the opened bills on 2 January 1929, after the bills had been checked and ticked off by the defendants' quantity surveyors, was a signification to the plaintiffs of that acceptance, and that there was, therefore, a completed contract between the plaintiffs and the defendants. Counsel for the defendants admitted that what had been done was highly undesirable, and that the bills of quantities ought to have been returned unopened to the plaintiffs. But he contended that the opening of the bills of quantities did not amount to an acceptance of the plaintiffs' tender.

I regret that I am unable to agree with the argument for the plaintiffs, who seem to have been shabbily treated. Even though it be assumed that, when the resolution of the defendants' managing committee of 18 December was passed, it was the intention of the defendants to accept the plaintiffs' tender, that, I think, is not enough. In such a case an intention to accept an offer is not an acceptance unless and until the intention is communicated to the person by whom the offer is made. And the returning of the plaintiffs' opened bills of quantities to them on 2 January cannot, in my opinion, be regarded as the communication of an acceptance, because, before they were returned, Mr. Bridgman informed Mr. Barnes that the defendants had decided to accept the contract of another builder.

I think, therefore, that there must be judgment for the defendants.

Solicitors.—Messrs. Eastley and Co., Paignton; Messrs. Stanley Richards and Norrington, Paignton.

### INTERNATIONAL CONGRESS FOR CONCRETE AND REINFORCED CONCRETE.

LIEGE, 1 TO 6 SEPTEMBER, 1930.

There will be held at Liege, from 1 to 6 September the First International Congress for Concrete and Reinforced Concrete. This Congress, in which the participation of members of the Institution of Structural Engineers was invited by the Belgian Organising Committee, is being held in connection with the celebration of National Independence of Belgium, with an International Exhibition at Liege, which will open this month and remain open for six months.

The British Organising Committee comprises representatives of the Ministry of Transport, the Department of Scientific and Industrial Research, the Department of the Civil Engineer in Chief of the Admiralty, the Institution of Royal Engineers, the Royal Institute of British Architects, the Institution of Municipal and County Engineers, and the Institution of Chemical Engineers.

Travelling arrangements have been made for those who wish to take part in the Congress. Full information will be supplied on inquiry by the Secretary of the Institution of Structural Engineers, 10 Upper Belgrave Street, S.W.1.



## THE RURAL AMENITIES BILL.

In view of Sir Hilton Young's unexpected visit to Iraq the Rural Amenities Bill, of which he has already secured the second reading, has been withdrawn. It is hoped, however, that the Government will be prepared to introduce a comprehensive measure on this subject next Session. A feature of the new Parliament has been the increased interest taken by members in the necessity for preserving the beauties of the countryside. Action has been taken on a number of private Bills, and within the last few days a second reading has been given to the Malvern Hills Bill after assurances had been given by its promoters that the objections taken to it would be fully met in Committee.

TOWN PLANNING INSTITUTE.  
SCOTTISH BRANCH.

At the first annual meeting of the Scottish Branch of the Town Planning Institute the following Executive Committee was appointed: *Chairman*—Sir W. E. Whyte, O.B.E. *Vice-Chairman*—W. H. McLean, A.R.T.C., M.Inst.C.E., Ph.D. *Honorary Vice-Chairmen*—The Most Honourable the Marquis and Marchioness of Aberdeen and Temair. *Honorary Secretary*—Mr. James Macaulay, F.S.L., F.F.S., F.S.A. (Scot), 37, St. Vincent Crescent, Glasgow, C.3. *Honorary Treasurer*—Mr. F. A. B. Preston, M.Inst.M. and Cy.E. *Executive Committee*—Messrs. T. F. Henderson, A.M.Inst.C.E.; F. C. Mears, F.R.I.B.A.; G. B. Deas; J. D. MacIntyre, B.L., and R. S. Hay, M.Inst.M. and Cy.E.

MODEL OF THE HOLY SEPULCHRE,  
JERUSALEM.

In consequence of the interest shown in the model now on exhibition in the Library, kindly lent by Sir Charles Trevelyan at the suggestion of the President, it has been decided to continue its exhibition till 28 June next. Readers may be referred to the illustration of the model and article by Mr. Sidney Toy in the last issue of the JOURNAL (10 May, p. 487).

## CENTRAL SCHOOL OF ARTS AND CRAFTS.

The annual exhibition of students' work will open on Monday, 2 June, and continue until the last Saturday of the month. Hours 12 till 8. Admission free, without tickets.

## A.A.S.T.A. TOUR TO SPAIN.

The party will leave London on the evening of Saturday, 30 August 1930, and travel via Newhaven, Dieppe and Paris to Bordeaux, where the day will be spent. The party will then proceed to Burgos, Segovia and Madrid. Seven days will be spent in Madrid, which will permit several local visits, including Toledo. On 11 September the party will return to Paris for London. Those who desire can return earlier and those wishing to extend the trip may visit Granada, Cordova, or Seville, etc.

The approximate cost will be £20, 2nd class rail and steamer. Members travelling from the provinces may obtain return tickets to London at single fare and a half.

The party will be in charge of Mr. A. W. Reading, who speaks Spanish and has considerable experience of Spain.

A post card to the Secretary, A.A.S.T.A., 26 Buckingham Gate, S.W.1, will ensure full particulars as soon as available.

## WOOLWICH POLYTECHNIC.

APPOINTMENT OF HEAD TEACHER OF THE BUILDING SECTION  
(EVENING CLASSES ONLY).

(1) The Governors invite applications for the above additional part-time teaching appointment, duties to commence in September 1930.

(2) Attendance at the Polytechnic will be required at no time except during the evening, i.e., for periods as arranged after 6.30 p.m.

(3) The teacher appointed will be responsible to the Principal for the arrangement of courses in the whole of the Building Section, for advice in the selection of Visiting Teachers, and for advice as to the supply and proper maintenance of the teaching equipment.

(4) The Teacher will be expected himself to undertake teaching on not more than four evenings per week during the session, and to attend on a fifth evening as required to keep in touch with the other teachers of the Section.

(5) The duration of the session in each year and the vacation periods will be as set out in the Students' Handbook for each current session. As a general rule, the full session will extend from the commencement of the last week in September to the end of the first week in May, but it is hoped to develop some continuance for special subjects into a "Summer Term" (May to the end of June).

(6) Remuneration will be at the rate of £250 per annum, payable in twelve equal monthly instalments.

(7) Application should be made as soon as possible to the Principal upon a form which will be provided.

(8) Selected candidates will be invited for interview.

R.I.B.A. INTERMEDIATE EXAMINATION.  
TESTIMONIES OF STUDY.

The Council of the R.I.B.A., on the recommendation of the Board of Architectural Education, have approved the following revised regulations for the R.I.B.A. Intermediate Examination to come into operation on 30 April 1931. Candidates submitting Testimonies of Study for consideration by the Examiners on or after this date will be required to comply with the new regulations.

A. *The Orders.* A façade or part of a façade of a building of recognised importance, showing the application of one or more of the Greek, Roman, or Renaissance Orders of Architecture. The Student must state his authority for the Order and the building, which should not be of recent design.

Sheet 1. A general drawing of the building, sufficient to illustrate the application of the Order, or Orders, with section of the façade wall, and plans of the façade wall in the storeys where the Orders occur.

Sheet 2. Details of the Order or Orders.

B. *Freehand Drawings.* Sheet 3. Classic Ornament or Medieval Ornament. Freehand drawing from the round.

C. *Measured Drawings.* Sheet 4. Measured drawings of an existing building or portion of a building, not of recent construction, to be selected by the candidate. His plottings and sketches are also to be submitted. Care must be exercised to select a building of architectural merit, and such essentials as stone jointings, etc., should be clearly indicated. If the candidate is in doubt as to a suitable subject he should communicate with the Secretary to the Board of Architectural Education.

Sheet 5. A simple design based on the subject measured for Sheet 4 after that sheet has been approved by the Examiners.

D. *Construction applied to Elementary Design.* Working drawings of a domestic building of moderate dimensions, designed by the candidate, showing clearly the construction of floors, roofs, joinery, etc.



The quality of design will be considered and work not reaching a reasonable standard of simple design will be disqualified on that ground.

Sheet 6. General drawings to a scale of 8 ft. to 1 in.

Sheet 7. A comprehensive 1-in. detail.

Sheet 8. Some full-size details.

#### R.I.B.A. FINAL EXAMINATION AND ACOUSTICS.

The Council of the R.I.B.A. have decided, on the recommendation of the Board of Architectural Education, that all candidates taking the Final Examination in 1932 and subsequent years shall be required to include in the four Testimonies of Study for which they must secure approval before being admitted to the Examination, one out of the two subjects set annually as R.I.B.A. Problems in Design involving a simple acoustic treatment with calculations to give the appropriate time of reverberation.

The following list of articles and books on the subject will be issued with each list of R.I.B.A. Problems in Design to guide candidates in obtaining the necessary information:—

##### BOOKS.

Watson, F. R.: *Acoustics of Buildings*, 1923.

Davis, A. H., and Kaye, G. W. C.: *The Acoustics of Buildings*, 1927.

##### ARTICLES.

Hope Bagenal: Planning for Good Acoustics, *R.I.B.A. JOURNAL*, 22 November, 6 December 1924.

" " Acoustics of Buildings, *The Builder*, 23 April, 28 May 1920.

" " Concert Room Acoustics, *Architects' Journal*, 6 June 1928.

" " The Leipzig Tradition in Concert Hall Design, *R.I.B.A. JOURNAL*, 21 September 1929.

" " Cinema, *The Architect*, 1929.

" " Acoustics as Applied to Buildings, *The Architect*, 8 and 29 April 1921.

" " Architectural Acoustics, *Specifications*, 1921, Volume 25.

" " Designing for Musical Tone, *R.I.B.A. JOURNAL*, 17 October 1925.

" " A Plea for Acoustic Reform in Law Courts, *Architects' Journal*, 28 March 1928.

" " The Acoustics of the Council Chamber, *Architects' Journal*, 7 March 1923.

W. H. Thorpe: The Acoustics of Buildings, *Architects' Journal*, 17 January 1923.

A. H. Davis: Designing for Loud Speakers, *The Architect*, 1 and 8 October 1926.

" " The Acoustics of Large Halls, *Architects' Journal*, 14 April 1926.

" " Acoustics in Building, *The Architect*, 28 November 1924.

G. A. Sutherland: The Acoustics of the Auditorium, *Architects' Journal*, 21 February 1923.

" " The Acoustics of the Auditorium, *R.I.B.A. JOURNAL*, 22 September and 29 October 1923.

A. G. Huntley: Applied Acoustics, *Architects' Journal*, 25 July 1928.

Two subjects involving acoustic treatment will be included for the first time in the list of R.I.B.A. Problems in Design for 1931.

#### R.I.B.A. STATUTORY EXAMINATION FOR DISTRICT SURVEYOR AND THE EXAMINATION FOR BUILDING SURVEYOR.

The R.I.B.A. Statutory Examination for the office of District Surveyor under the London Building Acts, and the Examination for Building Surveyor under Local Authorities, will be held at the R.I.B.A., London, on 15, 16 and 17 October 1930.

The closing date for receiving applications for admission to the Examinations, accompanied by the fee of £3 3s., is 24 September.

Full particulars of the Examinations and application forms can be obtained from the Secretary R.I.B.A.

At the recent R.I.B.A. Statutory Examination for candidates for the Office of District Surveyor, one candidate, Mr. Gordon Welch, presented himself and was successful in the Examination.

#### NOTES FROM THE MINUTES OF THE COUNCIL.

7 April, 1930.

##### BRITISH ARCHITECTS' CONFERENCE, 1931.

It was decided, on the recommendation of the Allied Society's Conference, to accept the invitation of the Royal Institute of the Architects of Ireland to hold the British Architects' Conference at Dublin in 1931.

##### EXAMINATIONS.

The following results were reported to the Council:—

*The R.I.B.A. Winter Examinations: Intermediate Examination.*—Examined, 147; passed, 45; relegated, 102; percentage passed, 31 per cent.

*Final Examination.*—Examined, 76; passed, 25; relegated, 42; percentage passed, 45 per cent.; (and 9 Part I only).

*Special Examination.*—Examined, 20; passed, 5; relegated, 14; percentage passed, 30 per cent.; (and 1 Part I only).

*Examination in Professional Practice for Students of Recognised Schools of Architecture Exempted from the R.I.B.A. Final Examination.*—Examined, 67; passed, 44; relegated, 23; percentage passed, 66 per cent.

*Special Examination in Design for Former Members of the Society of Architects.*—Examined, 3; passed, 0; relegated, 3; percentage passed, 0.

##### R.I.B.A. EXAMINATIONS OVERSEAS.

(i) *R.I.B.A. Intermediate and Final Examinations, Montreal, Canada, November and December, 1929:—Intermediate Examination.*—Examined, 1; passed, 1; relegated, 0; percentage passed, 100 per cent.

*Final Examination.*—Examined, 2; passed, 1; relegated, 1; percentage passed, 50 per cent.; (Part I only).

(ii) *R.I.B.A. Final Examination, Toronto, Canada, December, 1929.*—Examined, 1; passed, 0; relegated, 1; percentage passed, 0.

(iii) *R.I.B.A. Examination in Professional Practice, Bombay, India, December, 1929.*—Examined, 1; passed, 1; relegated, 0; percentage passed, 100 per cent.

(iv) *R.I.B.A. Special and Professional Practice Examination, Sydney, New South Wales, June, 1929: Special Examination.*—Examined, 1; passed, 0; relegated, 1; percentage passed, 0.

*Professional Practice Examination.*—Examined, 2; passed, 2; relegated, 0; percentage passed, 100 per cent.



(v) *R.I.B.A. Intermediate and Final Examinations, Cape Town, South Africa, November, 1929: Intermediate Examination.*—Examined, 9; passed, 4; relegated, 5; percentage passed, 44 per cent.

*Final Examination.*—Examined, 2; passed, 0; relegated, 2; percentage passed, 0.

(vi) *R.I.B.A. Final Examination, Auckland, New Zealand, November, 1929.*—Examined, 1; passed, 0; relegated, 1; percentage passed, 0.

(vii) *R.I.B.A. Special Examination, Perth, Western Australia, August, 1929.*—Examined, 1; passed, 1; relegated, 0; percentage passed, 100 per cent.

#### SCHOOL OF ARCHITECTURE, NOTTINGHAM.

It was decided, on the recommendation of the Board of Architectural Education, to recognise the School of Architecture, Nottingham, for exemption from the R.I.B.A. Intermediate Examination for its three years' full-time day course.

#### PRIZES.

*The Pugin Studentship, 1929.*—The report and drawings prepared on his tour by Mr. R. H. Matthew, Pugin Student, 1929, were approved.

*The Tite Prize, 1928.*—The sketches and drawings prepared on his tour by Mr. P. McNeil (A.), Tite-Prizeman, 1928, were approved.

*The Tite Prize, 1929.*—The sketches and drawings prepared on his tour by Mr. W. Crabtree, Tite-Prizeman, 1929, were approved.

*The Neale Bursary, 1930.*—The programme submitted for his tour by Mr. W. A. S. Cornack (A.), Neale Bursar, 1930, was approved.

*The Soane Medallion, 1930.*—The programme submitted for his tour by Mr. J. L. Martin, Soane Medallist, 1930, was approved.

*The Hunt Bursary, 1930.*—The programme submitted for his tour by Mr. T. M. Daniel (A.), Hunt Bursar, 1930, was approved.

#### THE GHISELLI GOLD MEDAL.

It was decided, on the recommendation of the Board of Architectural Education, to abolish the minimum age limit of 21 and to make the competition open to those who have not been in practice for a longer period than ten years, and who have passed the R.I.B.A. Final or equivalent Examination, or have produced certificates from responsible Architects to the effect that they have reached the required standard. This revision will not take effect until next year.

#### THE OFFICERS OF THE BOARD OF ARCHITECTURAL EDUCATION.

The Officers of the Board of Architectural Education were appointed as follows for the Session 1930-1931:—

Mr. L. Sylvester Sullivan;	Chairman.
Mr. W. H. Ansell (Chairman of the Examinations Committee)	Vice-Chairmen.
Professor A. E. Richardson (Chairman of the Schools Committee)	
Professor A. C. Dickie (Chairman of the Prizes and Scholarships Committee)	
Mr. A. H. Moberly;	Hon. Secretary.

#### MEMBERSHIP OF THE BOARD OF ARCHITECTURAL EDUCATION.

It was reported that the Institute of Builders had appointed Major F. A. Wallis, M.C., to represent them on the Board of Architectural Education.

#### ARCHITECTURAL STUDENTS AND EXPERIENCE ON BUILDINGS IN COURSE OF ERECTION.

It was reported that the Council of the Institute of Builders had cordially accepted the Council's invitation to draw up lists of builders willing to give facilities to architectural students for studying building work.

#### THE RESTORATION OF ST. PAUL'S CATHEDRAL.

It was decided to hold, on a suitable date in June, a special Council Dinner, at which all the architects who have been concerned with the restoration of St. Paul's Cathedral, should be invited as guests of honour, and to have a Special General Meeting on the same day at which a lecture, illustrated by lantern slides, on the work of restoration should be given.

The Ninth Report of the Works Sub-Committee of the St. Paul's Cathedral Preservation Committee was submitted to the Council. It has now been placed in the Library.

#### HIGHER BUILDINGS IN LONDON.

The following members were appointed to represent the R.I.B.A. at a conference which is being convened by the London Society to consider the growing tendency to relax the conditions governing the height of buildings in London:—

Professor S. D. Adahead.  
Mr. Charles Holden.  
Mr. Arthur Keen.  
Mr. W. Harding Thompson.

It was decided to ask the representatives to support the previous policy of the Council in this matter, viz., that the Council are not in favour of any general relaxation of the present conditions as laid down in the London Building Act.

#### THE SOUTH WALES ARCHITECTURE MEDAL.

Mr. G. C. Lawrence (F.) was appointed as the R.I.B.A. representative on the Jury for the Award of the South Wales Architecture Medal.

#### THE SINGAPORE ARCHITECTS' ORDINANCE, 1926, AND THE ENFORCEMENT OF THE CODE OF PROFESSIONAL PRACTICE IN SINGAPORE.

At the request of the Singapore Society of Architects, and on the recommendation of the Practice Standing Committee, it was decided to make representations to H.M. Government concerning the regularisation of the personnel of the Board of Architects set up under the Singapore Architects' Ordinance, 1926, and also as to the enforcement of the Code of Professional Practice as provided for in the Ordinance.

#### SESSIONAL PAPERS.

The programme of papers for the Session 1930-1931 prepared by the Sessional Papers Committee was approved.

#### THE SALARIED MEMBERS COMMITTEE: MEMORANDUM ON THE STATE OF THE PROFESSION.

A memorandum on the state of the profession prepared by the Salaried Members Committee was approved for circulation to members.



# R.I.B.A. GRANTS FOR LIBRARIES OF SCHOOLS OF ARCHITECTURE AND ALLIED SOCIETIES.

It was decided, on the recommendation of the Board of Architectural Education, to make a grant of £100 for the year 1930, viz., £50 to the Board, and £50 to the Allied Societies' Conference for the provision of additional text-books for the use of students of Schools and Allied Societies which have an inadequate supply of such books.

## THE SOCIETY FOR THE PROTECTION OF ANCIENT BUILDINGS AND THE SURVEY OF BRIDGES.

It was decided to make a further grant of £10 10s. to the S.P.A.B. Fund for the Survey of Bridges.

### THE FELLOWSHIP.

The Council, by a unanimous vote, elected Mr. Allan George, of Toronto, to the Fellowship under the powers defined in the Supplemental Charter of 1925.

### MEMBERSHIP.

*Election 16 June, 1930.*—Applications for membership were approved as follows:—

As Fellows:	15 applications.
As Associates:	14 "

### REINSTATEMENT.

The following ex-member was re-instated:—

As Licentiate: V. V. Vadnerkar.

## APPLICATION FOR ELECTION AS LICENTIATE UNDER SECTION III (f) OF THE SUPPLEMENTAL CHARTER OF 1925.

One application was approved.

### RESIGNATIONS.

The following resignations were accepted with regret:—

Claude Paterson (A.)

F. Chapman Clemeshaw (L.).

## PROBATIONERS.

During the month of April, 1930, the following were registered as Probationers of the Royal Institute:—

BAMFORD: RICHARD SAMUEL, 173 Alexandra Park Avenue, Belfast.

BEECHAM: THOMAS WELLES, 19 Grosvenor Square, W.1.  
CHAMBERLAIN: DONALD, Rosemary, Down's Avenue, Whitstable, Kent.

COPELAND: FRED COPELAND, Staindrop S.O., Co. Durham.  
COX: GEOFFREY, 162 Beeches Road, West Bromwich, Staffs.

COX: WALTER JOSEPH, Imperial Hotel, Donaghadee, Ulster.  
DAVISON: THOMAS JAMES MAURICE, Belmont Lodge, Knock, Belfast.

GOODDEN: ROBERT YORKE, 14 King Edward Mansions, 8 Grape Street, W.C.

GRATRIX: HENRY HOLMWOOD, 92 Urnston Lane, Stretford, Manchester.

HAINS: ERIC PRICE, "Trewent," 2 Roping Road, Yeovil.  
HEYWOOD: LESLIE ALBERT JOES, Birtough, Northam, North Devon.

HUNT: ROBERT DENNIS, Fairwarp, Kingswood, Tadworth, Surrey.

JEFFERY: FRANCIS CHARLES, 59 Ferndale Road, Clapham, S.W.4.

MACMANS: JOHN, Alnwickhill Road, Liberton, Edinburgh.

MARLOW: ALAN FLETCHER, 1 St. John's Road, S.E.18.

MCKIBBIN: ERNEST ANDREW JOHN, c/o T. R. Eagar, Esq., 142 Royal Avenue, Belfast, N.I.

MCLEAN: COLIN ROSS, c/o New Zealand House, 415 The Strand, W.C.2.

MITTON: ALBERT PEARSON, 134 Aldermans Green, Foleshill, Coventry.

PARKINSON: TOM NOEL, 31 Richmond Mount, Headingley, Leeds.

PARSONS: IVAN FREDERICK GILBERT, 146 Brockley Grove, Crofton Park, S.E.4.

PEAKE: WILLIAM EDWARD, 29 Havelock Place, Shelton, Stoke-on-Trent, Staffs.

POTTS: ALEXANDER ROBERT BALLIOL, 97a Whipcord Lane, Chester.

PYE: RICHARD, "Wawanesa," Poulton Road West, Poulton-le-Fylde.

QUINN: CHARLES JOSEPH, 37 Isis Street, Earlsfield, London, S.W.18.

ROWE: O'BRIAN JOHN LEATT, "Daintree Cottage," Marlow, Bucks.

SEIN: MAUNG TUN, 34 Bedford Square, W.C.1.

SIMPSON: ARTHUR, 18 St. Michael's Road, Headingley, Leeds.

SMITH: DONALD CHARLES DENTON, 25 Belvoir Road, Cambridge.

THORPE: RAYMOND BANKS, 53 Church Street, Caversham, Reading, Berks.

TOWLER: STANLEY LOVELL, 41 The Crescent, New Malden, Surrey.

TURNER: FRANK ALBERT, "Wilmington," 38 South Farm Road, Worthing.

VINEY: THOMAS LESLIE, 14 Pound Street, Warminster, Wilts.

WARD: JOHN FRANK, 21 Eglinton Road, Bow, E.3.

WILSON: EDWARD PATRICK, 24 Woodstock Road, Oxford.

WILSON: LESLIE HUGH, 8 Manor Road, Brockley, S.E.4.

## ELECTION OF STUDENTS R.I.B.A.

The following were elected as Students at the meeting of the Council held on 12 May 1930:—

DILLON: CARMEN JOSEPH, 149 Walm Lane, London, N.W.2.

GOOD: NORMAN DOUGLAS, 4 Appian Way, Dublin.

GOODDEN: ROBERT YORKE, 14 King Edward Mansions, 8 Grape Street, London, W.C.

HASWELL: GEORGE JOSEPH WATSON, 67 Victoria Road, Alexandra Park, London, N.22.

HUNT: ROBERT DENNIS, Fairwarp, Kingswood, Tadworth, Surrey.

MCCLAUGHLIN: CHARLES PHILIP, 98 Bethune Road, London, N.16.

MCLEAN: COLIN ROSS, c/o New Zealand House, 415 Strand, London, W.C.2.

MARLOW: ALAN FLETCHER, 1 St. John's Road, London, S.E.18.

MAW: GEOFFREY MORRISON, 47 Palmerston Crescent, Palmers Green, London, N.13.

MORRISON: ALEXANDER JAMES WILSON, 4 Hampton Terrace, Edinburgh.

PRIOR: JAMES FREDERICK, 22 Culmington Road, London, W.13.

RICHARDSON: RACHEL JOAN, Colvend, Boundary Road, Bidston, Cheshire.

ROBIN: ALEXANDER ARTHUR, 7 Melfort Avenue, Dumfreck, Glasgow.

ROBINSON: GEORGE DUNCAN, 96 Selwyn Road, Edgbaston, Birmingham.

ROSSER: CLIFFORD, 158 Clive Road, Canton, Cardiff.

SEIN: MAUNG TUN, 34 Bedford Square, London, W.C.1.

## ATTENDANCES AT COUNCIL AND STANDING COMMITTEE MEETINGS, SESSION 1929-1930.

### THE COUNCIL (10 Meetings).

*President:* Sir Banister Fletcher, 9. *Vice-Presidents:*

Henry V. Ashley, 7; E. Stanley Hall, 8; Henry M. Fletcher, 8; John Keppie (Glasgow), 5. *Honorary Secretary:* Sydney D. Kitson (Oxon.), 10.

*Members of Council:* Professor S. D. Adashead, 5;

Robert Atkinson, 3; Sir Herbert Baker, 0; Major Harry Barnes, 0; Herbert T. Buckland (Birmingham), 6;

H. S. Goodhart-Rendel, 6; Francis Jones (Manchester), 4; Arthur Keen, 10; H. V. Lanchester, 9; G. C. Lawrence (Bristol), 10; Sir Edwin L. Lutyens, 0;

Thomas R. Milburn (Sunderland), 7; Oswald P. Milne;



5; E. C. P. Monson, 9; Professor C. H. Reilly (Liverpool), 10; H. D. Searles-Wood, 10; Percy E. Thomas (Cardiff), 9; Maurice E. Webb, 8.

*Associate Members of Council:* Lieut.-Colonel H. P. Cart de Lafontaine, 8; G. Leonard Elkington, 3; Major T. C. Howitt (Nottingham), 6; R. Goulburn Lovell (Eastbourne), 9; Manning D. Robertson (Dublin), 2; J. Douglas Scott, 10; E. A. D. Tanner, 7; Michael J. Tapper, 9; E. Berry Webber, 10.

*Licentiate Members of Council:* A. B. Hayward, 8; E. H. Henzell (Nottingham), 0; Lieut.-Colonel P. A. Hopkins, 9; J. Llewellyn Smith (Aberdare), 7; Percy J. Waldram, 6; Colonel N. H. Waller (Gloucester), 10.

*Past Presidents:* E. Guy Dawber, 0; Walter Tapper, 2.

*Representatives of Allied Societies in the United Kingdom or the Irish Free State:* (Northern Province of England) Duncan A. Campbell (Liverpool), 7; G. H. Foggitt (Leeds), 10; C. M. E. Hadfield (Sheffield), 8; J. T. Halliday (Manchester), 6; G. Dudley Harbron (Hull), 10; Lieut.-Colonel A. K. Tasker (Newcastle), 7; (Midland Province of England) A. T. Butler (Birmingham), 7; G. M. Eaton (Derby), 6; Albert Herbert (Leicester), 6; Stanley Wearing (Norwich), 8; R. J. Williams (Kettering), 8; (Southern Province of England) Harry Hutt (Reading), 7; Thomas Overbury (Cheltenham), 4; B. Priestley Shires (Plymouth), 5; J. Arthur Smith (Basingstoke), 8. *Allied Societies in Scotland:* Andrew Balfour (Glasgow), 5; Donald Matheson (Inverness), 0; Patrick H. Thoms (Dundee), 3. *Allied Societies in Wales:* T. Alwyn Lloyd (Cardiff), 9. *Allied Societies in Ireland:* F. G. Hicks (Dublin), 3; E. R. Kennedy (Ulster), 3.

*Representatives of Allied Societies in the British Dominions Overseas:* Professor A. S. Hook (Australia), 0; Robert Howden (South Africa), 0; Percy E. Nobbs (Canada), 0.

*Representative of the Architectural Association (London):* F. Winton Newman, 6.

*Representatives of the Association of Architects, Surveyors and Technical Assistants:* W. H. Hamlyn, 8.

*Chairman of the Board of Architectural Education:* L. Sylvester Sullivan, 9.

*Chairman of the Four Standing Committees:* E. C. Bewlay\* (Birmingham) (Art), 9; M. S. Briggs† (Literature), 8; Sydney Tatchell† (Practice), 8; Dr. Raymond Unwin† (Science), 8.

*The Art Standing Committee* (9 meetings): Professor S. D. Adshhead, 2; E. C. Bewlay\* (Birmingham), *Chairman*, 8; H. Chalton Bradshaw, 6; C. F. W. Denning (Bristol), 6; H. S. Goodhart-Rendel, 4; Charles H. Holden, 7; C. H. James\*, 6; Arthur Keen, *Vice-Chairman*, 6; Edward B. Maufe\*, 6; Oswald P. Milne, 2; M. H. Baillie Scott, 6; Louis de Soissons, 5; G. G. Wornum, *Joint Hon. Secretary*, 6; R. A. Duncan, *Joint Hon. Secretary*, 8; Cyril A. Farey, 2; E. Maxwell Fry, 7; Hon. H. A. Parkinson, 7; S. Rowland Pierce, 6; F. E. Towndrow\*, 6; Michael Waterhouse, 3; E. Berry Webber\*, 8; A. S. Soutar, 6; Francis R. Taylor, 9; R. Minton Taylor, 5.

*The Literature Standing Committee* (7 meetings): Louis Ambler, *Vice-Chairman*, 6; W. H. Ansell\*, 0; Martin S. Briggs, *Chairman*, 6; A. S. G. Butler, 4; Major H. C. Corlette\*, 6; C. Cowles-Voysey, 0; J.

Murray Easton, 5; D. Theodore Fyfe (Cambridge), 4; G. D. Gordon Hake\* (Bristol), 2; Arthur E. Henderson, 5; F. Winton Newman\*, 0; Basil Oliver, *Joint Hon. Secretary*, 6; C. S. Spooner, 5; Arthur Stratton, 3; H. W. Chester, 6; Professor F. S. Granger (Nottingham), 3; Miss E. K. D. Hughes\*, 5; H. C. Hughes (Cambridge), 4; E. R. Jarrett, 5; J. Maclaren Ross, 4; Grahame B. Tubbs, *Joint Hon. Secretary*, 7; A. B. Hayward, 4; E. M. Hick, 7; F. H. Mansford, 7.

*The Practice Standing Committee* (11 meetings): Henry V. Ashley, 9; A. Burnett Brown\*, 4; Frederick Chatterton\*, 8; H. S. Fairhurst (Manchester), 10; W. H. Gunton\*, *Joint Hon. Secretary*, 8; E. Bertram Kirby (Liverpool), 9; G. C. Lawrence (Bristol), 9; G. H. Lovegrove\*, 8; E. C. P. Monson\*, 8; J. Alan Slater, 8; Sydney Tatchell, *Chairman*, 11; Percy Thomas (Cardiff), *Vice-Chairman*, 7; Francis T. Verity, 9; W. E. Watson, *Joint Hon. Secretary*, 11; Herbert A. Welch, 3; John Batty, 9; H. V. Milnes Emerson, 10; W. H. Hamlyn, 5; R. Norman Mackellar (Newcastle), 9; J. Douglas Scott, 11; Edward Unwin, 10; F. R. Betenson, 10; J. W. Denington, 5; Capt. A. Seymour Reeves, 9.

*The Science Standing Committee* (10 meetings): Robert J. Angel, 8; W. E. Vernon Crompton, 2; G. R. Farrow, 8; W. A. Harvey (Birmingham), 5; Arthur J. Hope (Bolton), 7; Harry Hutt\* (Reading), 6; Alan E. Munby, 6; E. J. Partridge\*, 7; H. D. Searles-Wood, 7; Charles F. Skipper (Cambridge), *Joint Hon. Secretary*, 10; S. Pointon Taylor\*, *Joint Hon. Secretary*, 8; Dr. Raymond Unwin, *Chairman*, 9; T. Butler Wilson (Leeds), 4; P. W. Barnett\*, 7; W. T. Benslyn, 5; Eric Bird, 9; Edwin Gunn, 2; A. F. Hooper, 5; A. E. Mayhew, 1; C. S. White, 4; Alfred H. Barnes, 10; Lieut.-Colonel P. A. Hopkins, *Vice-Chairman*, 8; G. N. Kent\*, 7; Percy J. Waldram, 6.

\* Marked thus were appointed after the first meeting of the Committee.

† Marked thus were appointed after the second meeting of the Council. Possible attendances, 8.

## THE ANNUAL ELECTIONS.

### NEW NOMINATIONS TO COUNCIL AND STANDING COMMITTEES.

The following nominations have been made by members in accordance with Bye-law 36:—

*As a Vice-President.*—SCOTT: William Gillbee [F.], nominated by W. E. Vernon Crompton, Gilbert H. Lovegrove, David Barclay Niven, Sydney Tatchell, Geoffrey C. Wilson, John E. Yerbury, *Fellows*; H. V. Milnes Emerson, *Associate*.

*As Members of Council.*—CURTIS: William Thomas [F.], nominated by H. V. Lanchester, *Fellow*; W. E. Brooks, J. Grieve, Chas. McLachlan, Charles Woodward, *Associates*; L. A. F. Ireland, A. Seymour Reeves, *Licentiates*. DOWNING: Henry Philip Burke [F.], nominated by Arthur E. Bartlett, T. Frank Green, A. Blomfield Jackson, John E. Newberry, *Fellows*; C. W. Fowler, J. O. B. Hitch, John Rawlinson, *Associates*. HUMPHREYS: George Alfred [F.], nominated by E.



Whitfield Burnett, Richard Hall, *Fellows*; S. Colwyn Foulkes, Douglas Hall, H. Harold Hughes, R. Parker, *Associates*; Ellis F. White, *Licentiate*. **POULTER**: Briant Alfred [F.], nominated by Chas. E. Hanscomb, Hugh Macintosh, H. Reginald Poulter, J. Edward Still, *Fellows*; W. B. Mowbray, *Associate*; Christopher Chart, T. Graham Crump, F. W. Rees, *Licentiate*. **STRANGE**: Charles Hilbert [F.], nominated by Henry Elwig, John W. Little, H. V. Lanchester, W. H. Robinson, *Fellows*; L. Mason Apps, H. J. Benians, G. Gregor-Grant, R. Goulburn Lovell, C. J. F. Martindale, Geoffrey Ridley, *Associates*; Edwin A. Jackson, *Licentiate*.

*As Associate Members of Council*.—**EXTENSION**: Harry Valentine Milnes [A.], nominated by G. Reginald Farrow, W. H. Gunton, E. B. Kirby, Thos. E. Scott, W. Gillbee Scott, J. Alan Slater, Frank T. Verity, *Fellows*.

*As Licentiate Member of Council*.—**REES**: Major Frederick William [L.], nominated by Henry Elwig, Chas. E. Hanscomb, H. V. Lanchester, Hugh Macintosh, Briant Poulter, J. Edward Still, *Fellows*; W. B. Mowbray, *Associate*; Christopher Chart, T. Graham Crump, F. Sutton Smith, *Licentiate*.

*As Member of the Literature Standing Committee*.—**CHATTERTON**: Frederick [F.], nominated by Harry S. Fairhurst, E. Bertram Kirby, Gilbert H. Lovegrove, E. C. P. Monson, Sydney Tatchell, Frank T. Verity, W. E. Watson.

*As Members of the Practice Standing Committee*.—**CAPLE**: Major William Henry Dashwood [F.], nominated by C. E. Batenian, Ernest C. Bewlay, Herbert Buckland, F. Barry Peacock, *Fellows*; William H. Ashford, Alfred Hale, A. Malcolm McKewan, Arthur McKewan, *Associates*. **NICHOLAS**: Charles [F.], nominated by Robert Atkinson, E. Guy Dawber, J. E. Dixon-Spain, Thos. S. Tait, Henry Tanner, Maurice E. Webb, *Fellows*; H. J. Venning, *Associate*. **NIVEN**: David Barclay [F.], nominated by W. E. Vernon Crompton, W. R. Davidge, Arthur Keen, Bernard W. H. Scott, W. Gillbee Scott, Sydney Tatchell, *Fellows*; Charles Woodward, *Associate*. **SOLOMON**: Digby Lewis [F.], nominated by R. J. Angel, Percy V. Burnett, M. N. Castello, Ernest B. Glanfield, E. Bertram Kirby, W. E. Riley, H. D. Searles-Wood, *Fellows*.

*As Associate Member of the Practice Standing Committee*.—**MARTINDALE**: Christopher James Fawcett [A.], nominated by Wilfred J. Hardcastle, H. V. Lanchester, John W. Little, Hugh Macintosh, J. H. Martindale, T. Taylor Scott, C. H. Strange, A. K. Tasker, *Fellows*; Percy Dalton, R. Goulburn Lovell, R. Norman Mackellar, *Associates*; Ernest Barber, Edwin Jackson, E. Wallis Long, *Licentiate*.

## Notices

### BRITISH ARCHITECTS' CONFERENCE, NORWICH, 18-21 JUNE 1930.

Final arrangements for all the events of the Conference are now being made. It is hoped that all members who have not already done so will at once refer to the programme sent to them with the last issue of the JOURNAL, and send in their names for such of the events as they desire to take part in without delay.

Members of the R.I.B.A. and the Allied Societies who are officials of local authorities are asked to notify the Secretary R.I.B.A. if they would like formal invitations to be sent to such authorities to appoint delegates to the Conference.

### MEMBERS' TOUR TO THE UNITED STATES AND CANADA.

In view of the success which attended the visit to the United States and Canada of a party of members of the R.I.B.A. last year, and as many members who were unable to avail themselves of that opportunity expressed a desire to undertake such a trip on a future occasion, it has been decided to organise a further party this year.

The numerous advantages to be gained by undertaking a visit to the United States and Canada from an architectural point of view will be obvious, particularly when the visit is made in company with fellow members of the Institute.

The suggested tour will include New York, Philadelphia, Washington, Detroit, Niagara Falls, Toronto, Ottawa and Montreal, and notes regarding the places of interest from an architectural standpoint, compiled by Mr. Percy E. Thomas, O.B.E., F.R.I.B.A., the leader of last year's party, will be available for members.

The duration of the trip will be approximately one month, and the cost, including cabin class accommodation on the Atlantic steamers, hotel accommodation in the United States and Canada, rail fares, etc., will be about £80. This amount is exclusive of meals ashore, gratuities, transfer of passengers and baggage between stations, steamers, hotels, etc., and sight-seeing trips.

The party will travel from Liverpool for New York by the Cunard liner *Samaria* on 5 July, returning by the *Ascania* from Montreal to Plymouth and London on 25 July.

Relatives and friends of members will be welcomed. Members interested are requested to apply to Mr. H. T. Leese, The Cunard Steamship Company, Ltd., 26-27, Cockspur Street, London, S.W.1, who will be pleased to forward a complete itinerary, etc., on request.

### OVERSEAS APPOINTMENTS.

Members contemplating applying for appointments overseas are recommended to communicate with the Secretary R.I.B.A., who will supply them with any available information respecting conditions of employment, cost of living, climatic conditions, etc.

WILLIAM H. HAMILYN,

Hon. Sec. R.I.B.A., Salaried Members' Committee.

### ELECTION OF MEMBERS, 1 DECEMBER, 1930.

Associates who are eligible and desirous of transferring to the Fellowship are reminded that if they wish to take advantage of the election to take place on 1 December 1930, they should send the necessary nomination forms to the Secretary R.I.B.A. not later than Saturday, 27 September 1930.

### LICENTIATES AND THE FELLOWSHIP.

The attention of Licentiate is called to the provisions of Section IV, Clause 4 (b) and (c) of the Supplemental Charter of 1925. Licentiate who are eligible and



desirous of transferring to the Fellowship can obtain full particulars on application to the Secretary R.I.B.A., stating the clause under which they propose to apply for nomination.

#### THE NATIONAL ASSOCIATION OF WATER USERS.

Members are reminded that the National Association of Water Users, on which the R.I.B.A. is represented, exists for the purpose of protecting the interests of consumers. Members who experience difficulties with water companies, etc., in connection with fittings are recommended to seek the advice of the Association. The address of the Association is 46 Cannon Street, London, E.C.4.

#### ELECTION OF MEMBERS.

16 JUNE 1930.

An election of members will take place at the Business General Meeting to be held on Monday, 16 June. The names and addresses of the candidates (with the names of their proposers) found by the Council to be eligible and qualified for membership according to the Charter and Bye-laws, and recommended by them for election, are as follows:—

##### AS FELLOWS (15).

- BENJAMIN:** ASHLEY FLORIAN [A. 1906], 98 George Street, Portman Square, W.1; 5 Southwick Street, Hyde Park, W.2. Proposed by M. E. Collins, Owen H. Collins and J. Ernest Frueck.
- BUTNELL:** LEONARD HOLCOMBE [A. 1913], 104 Great Russell Street, W.C.1; 79 Castellain Mansions, Maida Vale, W.9. Proposed by F. Winton Newman, A. B. Knapp Fisher, C. Lovett Gill and C. H. James.
- CHALLEN:** HAROLD BERTRAM [A. 1921], c/o Messrs. H. O. Ellis and Clarke, 5 Old Queen Street, S.W.1; 1 Chaseville Park Road, Winchmore Hill, N.21. Proposed by W. Lee Clarke and Herbert O. Ellis under Clause c (ii), Section IV, Charter 1925, and Bye-law 3 (d).
- CLARK:** CHARLES WALTER, P.A.S.I. [A. 1908], Architect, Metropolitan Railway, Baker Street, N.W.1; The Cottage, Meath Green, Horley, Surrey. Proposed by Charles E. Varndell, Fredk. R. Hiorns and Edward Bomer.
- CLARKE:** JAMES ANDREW, P.A.S.I. [A. 1919], Rutherford College, Newcastle; 50 Studley Gardens, Whitley Bay, Northumberland. Proposed by Francis Jones, Dr. Percy S. Worthington and J. Theo Halliday.
- CLIFTON:** EDWARD NOEL, B.A. Cantab., P.A.S.I. [A. 1921], Empire House, St. Martin's-le-Grand, E.C.; 21 Ovington Square, S.W. Proposed by Josiah Gunton, Thos. A. Moodie and Sir Edwin Cooper.
- JACKSON:** GORDON WALLER [A. 1925], 5 and 7 Yelverton Road, Bournemouth; "Bydand," Penrith Road, Bournemouth. Proposed by T. Stevens, A. Edward Shervay and C. F. W. Dening.
- SUTHERLAND:** THOMAS SCOTT [A. 1924], 10 Albion Place, Aberdeen. Proposed by J. A. O. Allan, James B. Nicol and Robt. G. Wilson, Jun.

And the following Licentiates who have passed the qualifying Examination:—

- DOWTON:** WILLIAM LEONARD, 125 Pall Mall, S.W.1; 166 Rye Lane, Peckham, S.E.; The Nook, West Wickham, Kent. Proposed by Osborn C. Hills, Stanley Harp and Lawton R. Ford.
- GREENES:** WALLACE AUSTIN, 5 and 7 Yelverton Road, Bournemouth; "Beaulieu," De Lisle Road, Bournemouth. Proposed by C. F. W. Dening, B. F. G. Wakefield and Herbert Kendall.
- LAWRENCE:** HENRY MATTHEW, Victoria Law Courts, Bir-

mingham; "Millmead," Middleton Hall Road, King's Norton, Birmingham. Proposed by C. E. Bateman, Thomas R. Milburn and A. T. Butler.

**WALKLEY:** ALFRED HENRY, 476 Collins Road, Melbourne, Victoria, Australia; "Ellonga," Kooyong Road, Toorak. Proposed by W. A. Henderson, Rodney H. Alsop and Kingsley A. Henderson.

And the following Licentiates who are qualified under Section IV, Clause 4 c (ii) of the Supplemental Charter of 1925:—

**BRACE:** HENRY, 2 Avenue Road, South Norwood; Borough Engineer's Office, Wandsworth Council. Proposed by G. Topham Forrest, William Grellier, and under Bye-law 3 (d).

**CANTILL:** MARK TAYLOR, 616 North Flores Street, Hollywood, Los Angeles, California, U.S.A. Proposed by Andrew Sharp, Charles Cressey and under Bye-law 3 (d).

**ROBERTSON:** ROBERT, Architect's Department, London County Council, County Hall, S.E.1; 45 St. Mary's Mansions, Paddington, W.2. Proposed by G. Topham Forrest, E. P. Wheeler and Fredk. R. Hiorns.

##### AS ASSOCIATES (14).

- BENNETT:** WILLIAM GARNSWORTHY [Special], c/o Messrs. Eales, Cohen and Bennett, Architects, National Chambers, William Street, Perth, W. Australia. Proposed by Sir J. Talbot Hobbs, Rodney H. Alsop and under Bye-law 3 (d).
- BEVERIDGE:** GILBERT ROBERT [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], 2, Southfields, Leek, Staffs. Proposed by Howard Robertson, J. Murray Easton and R. T. Longden.
- COWIN:** JOHN NORRIS, B.Arch. Liverpool [Passed five years' course at the Liverpool School of Architecture, University of Liverpool. Exempted from Final Examination after passing Examination in Professional Practice], 24 Carlton Vale, N.W.6. Proposed by Professor C. H. Reilly, Sir Herbert Baker, and Professor Lionel B. Budden.
- DUNCAN:** DAVID RONALD [Final], 67 Green Dragon Lane, Winchmore Hill, N.21. Proposed by Sir Banister Fletcher, George A. Mitchell and W. Scotter Owen.
- HILLIER:** NORMAN BASIL [Passed five years' joint course at the Architectural Association and the Liverpool School of Architecture, University of Liverpool. Exempted from Final Examination after passing Examination in Professional Practice], Pinnaster, West Hill, Winchester. Proposed by Professor C. H. Reilly, Howard Robertson and A. Leonard Roberts.
- KELHAM:** HARRY WILKINSON [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], 29 Empingham Hill, Stamford, Lincs. Proposed by Howard Robertson, Henry F. Traylen and F. J. Lenton.
- McINTOSH:** WILLIAM GORDON [Passed five years' course at the University of Witwatersrand, Johannesburg. Exempted from Final Examination after passing Examination in Professional Practice], 672 Schoeman Street, Arcadia, Pretoria, Transvaal. Proposed by D. M. Burton, D. M. Sinclair and Allen Wilson.
- MACLEOD:** ALEXANDER NORMAN [Passed five years' course at McGill University, Montreal. Exempted from Final Examination after passing Examination in Professional Practice], 1520 Mountain Street, Montreal, Canada. Proposed by Professor Ramsay Traquair, Philip J. Turner and Hugh G. Jones.
- ORFÈRE:** RONALD FRANCIS [Final], 30 Guessens Road, Welwyn Garden City, Herts. Proposed by Howard Robertson, Robert Atkinson and Thos. S. Tait.
- ITCHIE:** JOHN ARCHIBALD [Passed five years' course at the Architectural Association. Exempted from Final Exam-



ination after passing Examination in Professional Practice], c/o Messrs. Palmer and Turner, 1 Canton Road, Shanghai. Proposed by George L. Wilson, Louis de Soissons and Howard Robertson.

**ROBINSON :** ALBYN PEART [Final], 71 Victoria Road, Kensington, W.8. Proposed by Theodore Fyfe, Beresford Pite and C. E. Varndell.

**TOUGH :** ALEXANDER [Passed five years' course at Robert Gordon's College, Aberdeen, Exempted from Final Examination after passing Examination in Professional Practice], 9 Endleigh Gardens, W.C.1. Proposed by A. G. R. Mackenzie, Herbert Wigglesworth and Percy B. Tubbs.

**WAKELIN :** RICHARD NEWTON [Special], 1 Parton Street, Red Lion Square, W.C.1. Proposed by W. Campbell Jones, Professor A. E. Richardson and Edward A. Hunt.

**WALL :** MARY LILLIAN JOY (Miss) [Passed five years' course at the Architectural Association, Exempted from Final Examination after passing Examination in Professional Practice], 33A Crystal Palace Park Road, S.E.26. Proposed by Robert Atkinson, Howard Robertson and J. Murray Easton.

## Competitions

### BANGOR (CO. DOWN) LAY-OUT OF SEA-FRONT.

The Bangor (Co. Down) Borough Council invite architects and town planners to submit, in open competition, designs for the lay-out of the sea-front in the Borough.

Assessor : Professor Patrick Abercrombie, M.A. [F.].  
Premiums : £150 and £50.

Last day for receiving designs, 1 September 1930.

Conditions of the competition may be obtained on application to Mr. J. Milliken, Town Clerk, Borough Council Offices, Bangor, Co. Down. Deposit £1 1s.

[Conditions are under consideration by the Competitions Committee.]

### CARLISLE : ENGLISH STREET IMPROVEMENT.

The Corporation of the City of Carlisle invite architects to submit, in open competition, designs for the façade to English Street and the Victoria Viaduct, suitable for Shops and Business Premises.

Assessor : Mr. Francis Jones [F.].

Premiums : £300, £200 and £100.

Conditions of the competition may be obtained on application to Mr. Percy Dalton, A.M.Inst.C.E. [A.], City Engineer, 18 Fisher Street, Carlisle. Deposit £1 1s.

[Conditions have not yet been considered by the Competitions Committee.]

### CHELMSFORD : PUBLIC LIBRARY AND MUSEUM.

The Chelmsford Corporation invite architects to submit, in open competition, designs for a New Public Library and Museum, at a cost of £25,000.

Assessor : Mr. H. V. Lanchester [F.].

Last day for receiving designs, 14 June 1930.

Conditions of the competition may be obtained on application to Mr. G. E. Barford, Town Clerk, Town Clerk's Office, Chelmsford. Deposit £1 1s.

### ENNISKILLEN : NEW MASONIC HALL.

The Masonic body of Enniskillen invite architects practising in Ireland, to submit, in competition, designs for a new Masonic Hall to be erected in Enniskillen.

Assessor : Mr. John Seeds [F.].

Premium : £50.

Last day for receiving designs, 30 May 1930.

Conditions of the competition may be obtained on application to Mr. R. W. Smith, Hon. Secretary, Building Committee, Masonic Hall, Enniskillen. Deposit £1 1s.

### KINGSTON-ON-THAMES : PUBLIC BATHS.

The Kingston-on-Thames Corporation invite architects to submit in open competition, designs for the erection of public baths, with the use of one as a public hall.

Assessor : Mr. J. Ernest Franck [F.].

Premiums : £300, £200, £100 and £50.

Last day for receiving designs, 14 June 1930.

Conditions of the competition may be obtained on application to Mr. A. W. Forsdike, Town Clerk, Town Clerk's Office, Kingston-on-Thames. Deposit £1 1s.

### LIVERPOOL : DEVELOPMENT OF SITE.

The General Building Syndicate, Ltd., invite architects to submit, in open competition, schemes for the development of a site at Liverpool fronting St. Johns Lane, Queen Square and Roe Street.

Premiums : £250, £100 and £50.

Conditions of the competition may be obtained on application to The Secretary, General Building Syndicate, Ltd., 36 St. Martin's Lane, London, W.C.2. Deposit £2 2s.

[Conditions have not yet been received.]

### LIVERPOOL : PROPOSED PIER HEAD IMPROVEMENTS.

The Liverpool City Council propose to offer premiums of 1,000 guineas and 500 guineas in connection with a competition for the improvement of the amenities of the Pier Head. [Conditions are not yet available.]

### LUTON : TOWN HALL.

The Town Council of Luton invite architects to submit, in open competition, designs for a new Town Hall and Municipal Buildings, at a cost of £250,000.

Assessor : Sir A. Brummell Thomas [F.].

Premiums : £500, £300, £200, and £100.

Last day for receiving designs, 31 July 1930.

Conditions of the competition may be obtained on application to Mr. W. Smith, Town Clerk, 2 Upper George Street, Luton. Deposit £2 2s.

### WEST HUMBERSTONE : LIBRARY.

The Leicester Corporation propose to invite local architects to submit, in competition, designs for a Library, to be erected at West Humberstone.

Assessor : Mr. Hugh Gold [F.].

Premiums : £75, £50 and £25.

[Conditions are not yet available.]

### WORTHING : MUNICIPAL BUILDINGS.

The Corporation of Worthing invite architects to submit, in open competition, designs for new Municipal Buildings, to be erected in Chapel Road, Worthing.

Assessor : Mr. Henry V. Ashley, V.-P.R.I.B.A.

Premiums : £350, £250, £150 and £50.

Last day for receiving designs, 5 July 1930.

Conditions of the competition may be obtained on application to Mr. J. Kennedy Allerton, Town Clerk, Worthing. Deposit £1 1s.



## Members' Column

### PARTNERSHIPS WANTED.

A.R.I.B.A., age 30, about 8 years' private practice, wishes to enter into partnership, preferably in London, West of England or South Coast. Some capital available.—Apply Box No. 2953, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

Associate, 30 years of age, and with 7 years' London experience in the office of a prominent architect, desires Partnership in good town or city in South-West of England.—Apply Box No. 2909, c/o The Secretary R.I.B.A., 9 Conduit Street, W.1.

A.R.I.B.A., 42 years of age, with thorough, practical experience, desires Assistantship with a view to Partnership in the South of England.—Apply Box No. 2655, c/o Secretary R.I.B.A., 9 Conduit Street, London, W.1.

### CHANGE OF ADDRESS.

Mr. A. DOUGLAS ROBINSON [A.] has moved his London office from Cannon Street to 104 Queen Victoria Street, E.C.4. Tel. No. 1 Central 6020.

Mr. WILLIAM STANLEY GRICE [F.] has changed his address to 30 Upper Berkeley Street, Portman Square, W.1.

### MR. R. C. WHITE-COOPER.

MR. R. C. WHITE-COOPER, M.C., B.A., A.R.I.B.A., has started practice at No. 9 Woodstock Street, W.1. (Telephone: Mayfair 1861).

### PRACTICE WANTED.

Member wishes to purchase an old established practice, West of England or South Coast preferred, or would entertain a Partnership in a firm of standing.—Apply Box No. 2640, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

### OFFICE ACCOMMODATION.

Offices to let on the 2nd floor of 21 Suffolk Street, Pall Mall. The room is 16 feet by 12 feet 6 inches, and is very quiet. On the same floor and occupying the remainder of the rooms is a firm of architects, and there is a possibility that they would let a half share in their drawing office. The rent is £100 a year or an offer.

F.R.I.B.A. offers office accommodation (West End) with view to mutual assistance, and possible Partnership.—Apply Box No. 1353, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

## Minutes XV

### SESSION 1929-30.

At the Ninety-sixth Annual General meeting of the Session, 1929-30, held on Monday, 22 May 1930, at 8 p.m.

Sir Banister Fletcher, F.S.A., President, in the Chair.

The attendance book was signed by 29 Fellows (including 18 members of Council), 8 Associates (including 3 members of Council), 2 Licentiates (including 1 member of Council), and 1 Hon. Associate.

The Minutes of the Ordinary General Meeting held on 28 April 1930, having been published in the JOURNAL, were taken as read, confirmed, and signed as correct.

The Hon. Secretary announced the decease of:—

Professor Dr. Albert von Le Cou, of Berlin, elected

Honorary Corresponding Member 1896;

William Alan Norbury, elected Associate 1925;

John Thomas Coulson, elected Licentiate 1910;

Charles Henry Lawton, transferred to Licentiate Class 1925.

Richard Arthur Mill, elected Licentiate 1911;

and it was Resolved that the regrets of the Institute for their loss be entered on the Minutes and that a message of sympathy and condolence be conveyed to their relatives.

The Secretary announced that the Council had nominated for election to the various classes of membership the candidates whose names are published in this issue of the JOURNAL.

The President formally presented the report of the Council and Standing Committees for the official year 1929-30, and stated that the Chairmen or other representatives of all the Committees whose reports were appended to the Council's report had been asked to attend the meeting so as to be in a position to answer any questions that might be asked in connection with their reports.

The President having moved the adoption of the report and invited discussion upon it, the Hon. Secretary seconded the motion, and a discussion ensued.

The motion having been put from the Chair, it was Resolved that the Report of the Council and Standing Committees for the official year 1929-30 be approved and adopted.

A vote of thanks was passed by acclamation to the Council, Boards and various Committees for their work on behalf of the Royal Institute during the past year as recorded in the various reports presented to the Annual General Meeting.

Reference having been made to the work of the staff, a vote of thanks was passed by acclamation.

The President stated that the list of attendances at the Council and Standing Committee meetings had been laid on the table and would be printed in the next issue of the JOURNAL, and also sent out to members with the voting papers.

Upon the motion of the President a vote of thanks was passed by acclamation to Mr. E. J. W. Hider [F.] and Mr. R. W. Pite [F.] for their services as Hon. Auditors for the past year.

Mr. E. J. W. Hider [F.] and Mr. G. Ronald Topham [A.] were nominated for election as Hon. Auditors during the ensuing year of office.

The proceedings closed at 9.10 p.m.

## ARCHITECTS' BENEVOLENT SOCIETY

(Insurance Department).

### HOUSE PURCHASE SCHEME

(for property in Great Britain only).

The Society is able, through the services of a leading Assurance Office, to assist an Architect (or his client) in securing the capital for the purchase of a house for his own occupation, on the following terms:—

### AMOUNT OF LOAN.

Property value exceeding £666, but not exceeding £2,500, 75 per cent. of the value.

Property value exceeding £2,500, but not exceeding £4,500, 66½ per cent. of the value.

The value of the property is that certified by the Surveyor employed by the Office.

### RATE OF INTEREST

In respect of loans not exceeding £2,000 5½ per cent. gross.

" " in excess of " 5½ " "

### REPAYMENT.

By means of an Endowment Assurance which discharges the loan at the end of 15 or 20 years, or at the earlier death of the borrower.

### SPECIAL CONCESSION TO ARCHITECTS.

In the case of houses in course of erection, it has been arranged that, provided the Plan and Specification have been approved by the Surveyor acting for the Office, and the amount of the loan agreed upon, and subject to the house being completed in accordance therewith, ONE HALF of the loan will be advanced on a certificate from the Office's Surveyor that the walls of the house are erected and the roof on and covered in.

NOTE.—In 1928, over £20,000 was loaned to architects under this scheme, and as a result over £100 was handed to the Benevolent Fund.

If a quotation is required, kindly send details of your age next birthday, approximate value of house and its exact situation, to the Secretary Architects' Benevolent Society, 9 Conduit Street, London, W.

### R.I.B.A. JOURNAL.

DATES OF PUBLICATION.—1930.—7, 21 June; 12 July; 9 August; 20 September; 18 October.



# Journal of the Royal Institute of British Architects

THIRD SERIES

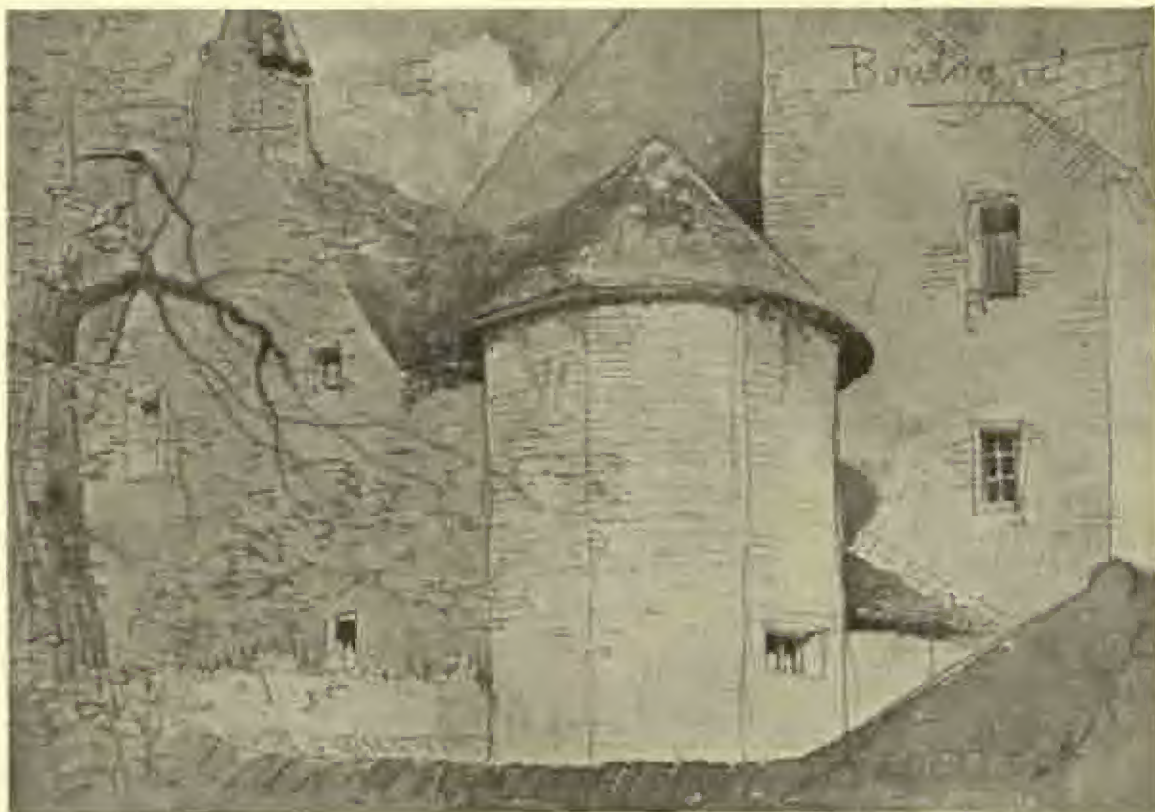
VOL. XXXVII. No. 15

7 JUNE 1930

## Contents for 7 June 1930

	Page
BOULOGNE: WATER-COLOUR SKETCH. By George Devey .. .. .	Frontispiece
THE R.I.B.A. ANNUAL DINNER:—	
SPEECHES BY SIR ERNEST WILD, K.C., THE PRESIDENT, SIR BANISTER FLETCHER, F.S.A., SIR HERBERT BAKER, A.R.A. [F.], THE RT. HON. THE LORD MAYOR OF LONDON, MR. SYDNEY D. KITSON, M.A. [F.] AND THE HON. MR. JUSTICE SWIFT .. .. .	
	539
SCIENCE AND THE ART OF ARCHITECTURE. By R. A. Duncan [A], Essay Medallist .. .. .	546
THE STOCKHOLM EXHIBITION, 1930. By L. E. Williams [A] .. .. .	558
REVIEWS:—	
ROYAL HOSPITAL, GREENWICH, SIXTH VOLUME OF THE WARREN SOCIETY. By T. C. Agutter [R.F.] .. .. .	559
LE CORBUSIER'S "URBANISME." By H. W. Chester [A] .. .. .	559
REPORT OF GREATER LONDON REGIONAL PLANNING COMMITTEE. By W. Harding Thompson [F.] .. .. .	560
THE STOCKHOLM TOWN HALL. By H. C. Hughes [A] .. .. .	561
NOTES ON SOME RECENT FOREIGN PERIODICALS. By Graham B. Tubbs [A.] .. .. .	562
THE LIBRARY .. .. .	564
CORRESPONDENCE:—	
EASEMENTS OF LIGHT. By John Swadwick [F.] .. .. .	565
PAINTING ON PLASTER AND CEMENT. By Dr. R. E. Stradling [Hon. Associate] .. .. .	566
THE ENGLISH COUNTRYSIDE. By Sir E. Hilton Young .. .. .	566
ALLIED SOCIETIES:—	
ULSTER SOCIETY OF ARCHITECTS .. .. .	567
YORK AND EAST YORKSHIRE ARCHITECTURAL SOCIETY .. .. .	567
OBITUARY:—	
JOHN HENRY WOODHOUSE [F.] .. .. .	567
JOSIAH GUNTON [F.] .. .. .	568
JOSEPH OSWALD [F.] .. .. .	568
W. J. MORLEY [F.] .. .. .	568
TWELFTH INTERNATIONAL CONGRESS OF ARCHITECTS AT BUDAPEST .. .. .	568
THAMES BRIDGES CONFERENCE .. .. .	569
INCOME TAX ALLOWANCES .. .. .	569
NOTICES .. .. .	570
COMPETITIONS .. .. .	571
MEMBERS' COLUMN .. .. .	572
MINUTES XVI .. .. .	572
A.B.S. SCHEME OF INSURANCE .. .. .	572





BOULOGNE

Water Colour Sketch by George Devey, F.R.I.B.A. (1820-86)

R.I.B.A. Collection





## The R.I.B.A. Annual Dinner

*(Held at the Guildhall on Thursday 15 May 1930)*

**T**HE Annual Dinner of the Royal Institute took place, through the kindness of the Lord Mayor and Corporation, at the Guildhall, City, on Thursday, 15 May 1930, when the chair was occupied by the President, Sir Banister Fletcher, F.S.A.

Following the toasts of "His Majesty the King," "Her Majesty the Queen, H.R.H. the Prince of Wales, and the other Members of the Royal Family," proposed by the President,

SIR ERNEST WILD, K.C. (Recorder of London), proposing the toast of the "Royal Institute of British Architects," said: "Technically, I am entirely unfitted to propose the toast of the Royal Institute of British Architects, as I know nothing technically about architecture. But technical knowledge may not be necessary rightly to appreciate a great subject. One may be fond of poetry without being able to compose an ode; one may delight in music without being able to play a note; one may enjoy a beautiful picture without being able to handle a paint brush; and one may listen with rapt attention to oratory without being able to make an after-dinner speech. I have gone to the Principia of your Institute, and I have studied the words of your Charter of Incorporation, which was granted to you by King William IV in the year 1837, and these are some of the words that I cull from that document. You received your first Charter 'for the general advancement of Civil Architecture . . . it being an Art esteemed and encouraged in all enlightened nations as tending greatly to promote the domestic convenience of Citizens, and the Public Improvement and embellishment of Towns and Cities.' That is the reason why you are the Royal Institute of British Architects. Right faithfully have you deserved the Royal confidence. For you have advanced the

art of architecture, and you have controlled and organised architectural education; so that you have become a great Imperial organisation comprising, wherever the British Flag flies, Allied Societies of more than ninety architectural bodies, and a membership of 15,000 architects and students. One may say that your grain of mustard seed has become a tree. Unfortunately, you are doomed to avoid the limelight—or, rather, it avoids you—for when there is a public function to open some important building, the Press will tell you all about the contractors, possibly also about the sub-contractors, certainly about the Member of Parliament who lays the foundation stone, but not a word about the architect. But then we are told that Solomon's Temple was built without sound of axes and hammers. Anyhow you have, materially, spiritually and psychologically, helped to mould the character of the citizens of this Empire. For does not a man's house become part of the man? Does it not help to make the man's character? Do not public buildings help to make or mar cities, just as thatched roofs may help to make, and petrol may help to mar, the countryside? We pray you to continue to create things of beauty. Ye are as gods knowing good and evil, and we believe that we Philistines may confidently rely upon you technical experts to create masterpieces and not monstrosities, to make our cities not only habitable but places of which their denizens may be proud.

So much for the character of the building. What of the character of the builder? I am privileged to couple with this toast the name of your President, Sir Banister Fletcher. I do know something about him—I here deal with a subject on which I am qualified to speak. I should say of him that he is the son of a



distinguished architect, and that is a good start. He is a much-travelled man, and thereby he has acquired the necessary culture for his art. He is a designer of buildings of distinction. He is an erudite writer and lecturer upon his great subject, and—what is more important than that—he is a many-sided man. He is not limited to his one subject, important though that is. In the first place, he is a barrister-at-law. He is a member of a profession which is Jack of all trades and master of none, but to which all trades confidently resort when they want their differences satisfactorily and comparatively cheaply settled. He was, over a decade ago, one of the most popular of the Sheriffs of the City of London. And, lastly, as a member of the Court of Common Council, he has done much to preserve nineteen City churches from—in the pagan name of utility—being destroyed, and thereby, to that extent, destroying the spirituality of the City. Also he has helped to prevent a scheme which, in his judgment, would have imperilled the not-too-secure foundations of St. Paul's Cathedral. The reason the St. Paul's Cathedral foundations are insecure is because, unhappily, Sir Christopher Wren commenced life as an astronomer. He never studied the elementary rudiments of his profession, and therefore, though he was a great architect, he was never a member of the Royal Institute of British Architects, which was then unborn. I do not want to enter into controversial subjects, such as "The Battle of the Bridges." Far be it from me, particularly in this atmosphere, to touch upon that subject; where should their site be? Should it be St. Paul's? Should it be Charing Cross? That is a quarrel that remains to be composed; probably Father Thames will never again be spanned in our lifetime. But when we come to the site of this Banquet, when we come to the place where, above all places, Sir Banister Fletcher should be honoured, there will be no quarrel as to the site of his triumphal arch.

The PRESIDENT, in replying to the toast, said: My Lord Mayor, Sheriffs, Sir Ernest Wild, My Lords, Ladies and Gentlemen.

It is with pride and satisfaction that I rise as President to reply to the toast of the Royal Institute of British Architects in this ancient Guildhall of our old City of London, where I have for 20 years taken part in many historic functions.

It is also a great pleasure to me that this toast has been proposed by my friend, the learned Recorder of London, and though he has been much too eulogistic of myself, we are grateful for the appreciative manner in which he has dealt with the Royal Institute of British Architects.

There is a certain liveliness in the architectural atmosphere at the present time, which I trust is not due to my accession to the Presidential Chair, though I must admit that I have been involved in many

recent architectural storm-centres, and so I must be somewhat circumspect in the way I reply to this toast.

In any case, I should find myself at a loss for suitable words to set out the activities and importance of the Royal Institute which "was founded to uphold the character and improve the attainments of the architect," and now, within 4 years of its centenary, has become recognised as the Arbiter of Architecture throughout the British Empire. It is, I think, not generally realised that the Royal Institute is a genuine Empire product, rooted in the old country, and with living branches in the Dominions across the Seas, so that at Christmas I was able to exchange Presidential greetings with our colleagues in Canada, South Africa, Australia, New Zealand, and the Crown Colonies. This made me realise that upon the Royal Institute of British Architects the sun never sets! Thus does British architecture, with its great traditions, encircle the world, and is far more widespread than was that of the Roman Empire.

The first meeting of the founders of the Institute was held in the Thatched House Tavern, and now, with nearly 100 architectural societies in alliance with us, we have over 15,000 architects and students within our fold, and consequently the Royal Institute has a wide and established authority and demands a high standard of professional practice and etiquette.

We continue to be consulted by His Majesty's Government, by ecclesiastical, municipal and other authorities all over the Empire, on architectural matters generally, including competitions, assessorships and arbitrations—all of which indicates universal confidence in our advice.

The architect of to-day has to be ready for all emergencies and invulnerable at all points. He must not only be an expert planner but is expected to know about the wayward ways of water, the caprices of electricity, the intricacies of plumbing, and the possibilities of gas—besides the proper and economical use of every kind of material. He should be something of a lawyer, and, as trustee for his client, should make his plans suit his client's purse.

The Royal Institute realises the increasing importance to architects of a sound and sufficient education and training to meet the requirements of their exacting art, and therefore guides and largely supports architectural education throughout the Empire at a cost to us of some £12,000 a year, so that architects were never better equipped than at the present time.

Our institute possesses the finest architectural library in the world, and with its Journal, Kalendar, Lectures, Exhibitions, Committees, Congresses, Prizes, Studentships and Examinations, it carries on work of a truly Imperial nature.

We now hope to secure an Act of Parliament which will provide for the registration of every qualified



architect—an arrangement for protecting the public which exists in many countries.

We have a fine site in Portland Place for our new Headquarters, for the design of which we are inaugurating a Competition, in accordance with our views for dealing with important buildings. It is a far cry from the Institute's first hired rooms over Thackeray's noisy "Cave of Harmony" in Evans' Coffee House, Covent Garden, to the stately respectability of Portland Place.

It is noticeable that in recent years there has been an increased public interest in architecture which has doubtless been promoted by facilities for travel, by the general practice of photography and by the illustrated Press, so that many people now have a useful knowledge of its historical development. In order to mould public taste and create a love of beautiful buildings, the Royal Institute provides lectures on architecture to children, who are our future citizens, and many of the Public Schools have taken up the subject, while the University of London gives a Diploma in Fine Art in which the History of Architecture is included.

Outside our professional work, architects now can and do give their time and ability in voluntary service to the public, on local authorities, advisory committees, and Panels of Architects, not only to provide good buildings, but to preserve them.

We can never sufficiently appreciate our heritage of noble buildings. What would England be without her architecture, the stage and setting of our island story? Just as the theatre is the glass of fashion, so is architecture a lithic history of each period. Cathedrals, castles, palaces, manor houses, parish churches, town mansions, colleges, cottages and market crosses—all these make England a treasure house of beauty in buildings, and of interest to those who have the knowledge to appreciate architecture and to capture its romance.

There are marked new developments in present-day architecture, but its ultimate tendencies are not easy to foresee, for, although founded on tradition, it must adapt itself afresh to modern needs and respond to the requirements of the social forces which are unfolding in our midst. Moreover it has often to be carried out in new materials, under changed conditions of labour, and with a stricter eye to economy. Thus, in its responsiveness to human requirements, architecture is the most democratic of the Arts, it walks hand in hand with us in our daily life and supplies the buildings for a greater variety of civil, social and public undertakings than in any previous age.

There is a great wave of building activity and a great revival of the civic spirit both in town and country to-day. Here around us, the City of London is being rebuilt and its scale is being changed by the erection of huge storied blocks which vie with each other in height, much as did the family Towers in

Medieval Italy. Amid these modern monsters our medieval Guildhall looks shy and modest.

If we turn to the country, we find that Regional Planning committees are promoting much architectural development, and we may well be proud of many housing schemes, which show a distinct advance on any previous planning of family homes. I am convinced that the whole of England—including built-up areas—should be placed under all-embracing Regional Planning Schemes, which should include power to act under architectural advice in regard to the external design of buildings if we would safeguard the charm of the countryside.

It must, indeed, be obvious that while we are erecting fine Cathedrals, Town Halls and University buildings in our Cities, it is unseemly that obtrusive Petrol Stations, ugly Garages, and unsightly Bungalows should mar the beauty of quiet country places, and public authorities should have power to control "Ribbon" development and to prevent the erection of roadside abominations, for the countryside lies open and helpless ready to be exploited for utility divorced from beauty. Meanwhile the voluntary work of the "Council for the Preservation of Rural England" is actively carried on by some of our members, including Lord Crawford and Balcarres, Mr. Guy Dawber, Professor Abercrombie and others.

It is matter for regret that the destruction of fine old buildings—large and small—goes on apace, and we are informed that a Cotswold Cottage has just now been carted away to America. Old buildings of character are national assets and should, where possible, be preserved, though it may be to serve another purpose, as with the mansions of Stowe, Bryanston, and Weston Birt, which have been adapted for schools. We have had much too lively a time of late in the architectural world as to these matters of destruction, preservation, and construction.

We must heartily congratulate the St. Paul's Cathedral Authorities and the *Times* on the completion of the work of preservation of the Dome, while not forgetting the necessity which still exists for protecting the foundations.

Among other matters to which we can refer with satisfaction are (a) the defeat of the proposed St. Paul's Bridge, (b) the saving from destruction of 19 condemned City Churches by the Corporation of London, and (c) our apparently successful protest against the official plans for buildings on the Calton Gaul site in Edinburgh.

The rejection of the official Charing Cross Bridge scheme by a Committee of the House of Commons has come with a sense of relief to those who desire a dignified Town Planning scheme for the centre of London. Public attention is now focused on this problem, the bridge is urgently needed, and the Royal Institute is ready, as it has always been, to co-operate



in securing a scheme worthy of this important site.

Thus you will realise that in matters of architecture we have had our own "safeguarding" duties to attend to, and I fear that they have often been of as contentious a nature as the "safeguarding" duties in industry.

In conclusion, let me say that in all our activities and undertakings the Royal Institute of British Architects stands for the advancement of architecture and for the cultivation of the spirit of civic pride which now, as ever, produces noble buildings.

In short, according to our original Charter, architecture is an "art esteemed and encouraged in all enlightened nations as tending greatly to promote the domestic convenience of citizens, and the public improvement and embellishment of towns and cities."

I again thank the learned Recorder for his eloquent words of appreciation and you, my Lord Mayor, Sheriffs, My Lords, Ladies and Gentlemen, for the manner in which you have received the Toast of the Royal Institute of British Architects.

Sir HERBERT BAKER [F.], in proposing the toast of the Lord Mayor, the Sheriffs and the Corporation of the City of London, said: I can assure you, my Lord Mayor, and I know I can speak on behalf of my fellow architects, that we thank you for allowing this dinner to take place in your magnificent and historic Hall. Speaking as one who has spent most of his life in distant parts of the Empire, where everything is new and in the making, I would say what a privilege I have felt it to be to work in this historic City, with its great associations. It has been a great wonder to me, as I worked, to realise the richness of those associations. In one small site in Lombard Street, where I am privileged to work, there existed the inns where the great companies met, the East Indian, the West Indian, the Merchant Adventurers, the African, the Virginian, and the Muscovy Company, England's attempt to outdo Columbus. You may say that in that small spot of the City you have all the Arthurian romance of the British Empire, and we are trying to preserve these historical associations built into the fabric of that building. At the Bank of England we are preserving all that we possibly can of the old buildings, and what we cannot preserve in actuality we are preserving in the spirit. Therefore I feel that these ancient architects, were they to see the completed building, would not feel that we have treated their building disrespectfully. We are there, under the inspiration of the Governor, painting on the wall, what the Governor has called "The Bank in being." We are portraying, with the aid of some of the great painters, not only the portraits of the Governor and directors, but officials, from the top to the bottom, those who load, carry and weigh the shining gold and the porters and guards in their beautiful uniforms. And, in order to

give the painters the opportunity of design and decoration, we are painting as a background the architecture which has existed and has to be pulled down. I feel that that kind of expression of the ancient history is a great opportunity for architects. My Lord Mayor, there should be a Society for the Preservation of the History of Ancient Buildings in the City. That is our architects' great opportunity, to preserve, through the aid of the sister arts, the historical associations of the buildings and sites with which we are concerned. It has been well said that to know the truth you must have a long memory as well as insight in the present and foresight for the future. That truth, I think, applies to architecture; it exemplifies Sir Christopher Wren's great saying, that "Architecture must have the attributes of the Eternal." It is a great truth. Modernists helic this truth in the name of which they boast, or so it seems to me. Here in this historic hall associations of the City of London are centred, all the great men, the merchant adventurers of the City of London have been here, three hundred years before and three hundred years afterwards; so this is the great centre, the *Ομφάλος γης* of the Empire.

The Rt. Hon. The LORD MAYOR OF LONDON, in responding, said: I wish to refer to one point to which architects might well devote some of their attention and their great ability, and that is the subject of acoustics in public buildings. I believe there are methods to-day by which the acoustics can be made absolutely perfect, but it was not the case in the old days.

Sir Banister Fletcher, I think, is responsible for a statement referring to this ancient Guildhall appearing in the fore part of your menu, "the surrounding buildings have been of gradual growth." Does not that express what has happened in many places? Things have been of gradual growth, without any system at all, and without any consideration for beauty of architecture. Sir Herbert Baker is a very distinguished architect who is, at the present time, I suppose, gradually shutting out some of the light from my present abode, the Mansion House. And he is not the only one. He may be responsible, too, for some of the other buildings which are going up in the neighbourhood of the Mansion House.

I only want to say one thing about the bridges—and please understand it is only my personal opinion from observation—go on to the bridges which serve the City, and see if they are full. No. It is not necessary to have additional bridges in the City. What is necessary is to get rid of the traffic which comes off those bridges; have proper communication to those bridges, and then, as far as the City is concerned, you will get rid of the difficulties of the traffic surrounding the bridges. Whatever bridge may be necessary for London outside the City, I fervently hope that the



Corporation, or the Bridge House and Estates Committee, will always take a long and broad view, and that they will devote their resources, when the time comes, not necessarily to providing bridges in the City, but will help to provide bridges where they are most needed for London as a whole.

The Corporation have always been public spirited; the good work they have done has been for the benefit of London as a whole, and I hope that will always be the case, and that in this way they will maintain the reputation which the Corporation has always held.

Mr. SYDNEY KITSON (Hon. Secretary, R.I.B.A.), in proposing the toast of "Our Guests," said: I once read, somewhere—it may have been in the columns of an evening newspaper—the words of a philosopher who said that Hospitality and Architecture were the two finest products of civilisation. If, as I believe to be the case, the author of these words is present as one of our guests to-night, I wish to thank him publicly for the statement of what I believe to be a profound truth. If he will allow me I will use his saying as a text for the few words I have to say in proposing the toast of "Our Guests."

You will observe then, if we analyse this text in the orthodox way, firstly that the philosopher places Hospitality before Architecture in his order of precedence. If you compare in your mind's eye the size of this great hall where, by the courtesy of the Lord Mayor and the good offices of our President, we are privileged to offer hospitality to our guests to-night, with that small room at the Royal Academy where the representative output of some ten thousand British architects is annually shown—then I think you will agree that the philosopher had reason for the order in which he placed the two words.

Secondly, although he puts Hospitality before Architecture, yet you will notice—and this is the crux of the whole matter—that the philosopher couples them together by the use of the simple word "and." In the same way we architects are trying to couple together to-night "the two finest products of civilisation" by offering hospitality in so large a room to those whom we delight to honour.

Thirdly—although I admit that this point is rather more obscure—the philosopher seems to hint that a peculiar civilising glow may result from the mingling of Hospitality and Architecture. We hope that you have felt this inward glow to-night, and that this glow—if glow there be—may be permanent and that it may favourably influence your outlook on contemporary Architecture.

If I may draw a moral from the text—and morals are said to be admirable digestives—it is this: Never judge of contemporary Architecture on an empty stomach. Some architect friend of yours may tell you, modestly enough, that he thinks—although of course he hopes

to do better next time—that his latest building may, perhaps, contain some message for Humanity. If you examine your friend's building in the cold light of the morning and fail to capture that message—then go and have a hearty lunch and return to your friend's building in the afternoon, when it may be that its walls will reverberate with messages for Humanity.

I wish I could mention all our guests by name to-night. To do so is impossible, since our President has—very properly—restricted me to five minutes. I must content myself by saying that they represent what is best in English life and thought and action. One exception I must make and mention the name of one of our guests—M. Pontremoli, the President of the French Society of Architects—who so well represents the life and thought and architectural culture of our neighbours and allies. Many of the lady guests are the wives and relatives of architects, and therefore know to the full the disappointments and triumphs of the most precarious and the most fascinating of all human callings. To them I offer my sympathy and my congratulations.

When I have finished speaking one of His Majesty's Judges will sum up. It depends partly on his summing up and partly on the warmth or otherwise of your own inward glow whether you, our guests—the jury—will or will not return a favourable verdict upon our efforts to-night to justify the words of the philosopher, when he said that Hospitality and Architecture were the two finest products of civilisation.

The Hon. Mr. JUSTICE SWIFT, replying for the guests, said: There are two simple English words which, if properly arranged and spoken with intention and sincerity, convey a host of meanings and are pregnant with sentiment. And, Mr. President, it is my privilege to-night to pronounce to you and those who are associated with you in offering us such kindly hospitality those two simple words: Thank you. To those of us, Mr. President, who have had the pleasure of knowing you and our charming hostess of to-night for many years, those words speak of the real affection which we feel for you individually. Those words also voice the great gratification which we, your guests, feel at being invited here to-night to share, for a few moments, some of the leisure of the members of the Royal Institute of British Architects. They also voice our feeling of admiration for the great work which has been done by you and your predecessors in office since that date which my learned friend the Recorder mentioned, but which I have now forgotten, though it was some time in the reign of William IV. We look, if not with awe, at any rate with admiration and gratification, at the great work which your Institute has done from that day until now, and is still doing. Mr. President, you in our own times—and when I say "you" I do not mean you individually, though I know you have done your part in



what has been accomplished—you and your colleagues have done marvellous things for the improvement of the environment in which we live. You have cleared away our slums—there are still some for those who come after you to clear—you have widened our streets, you have built us new towns. You have embellished our countryside. But, beyond these things, you have instilled into our minds the fact that besides the necessity of healthy surroundings for suitable life, hygiene is not incompatible with beauty, and comfort is not necessarily inartistic.

I speak to-night, by your command and to my great honour, on behalf of a great number of very distinguished guests. They represent every phase of literary, artistic, scientific, political, municipal, legal and everyday working life. I cannot pretend to imagine what each one of them would like to say to you in response to this toast. But I am convinced that I can express the gratitude of every one of them to this great Institute for the work its members have done in the past, which they will do in the future, and for the hospitality which you have offered to-night, if I say to you, "Thank you."

The following is a list of the company present:—

Sir Banister Fletcher, F.S.A., President R.I.B.A., in the Chair, and Lady Fletcher.  
The Rt. Hon. the Lord Mayor of London; The Lady Mayoress of London; The Rt. Hon. the Earl of Haddo, C.B.E., D.L., J.P., and The Countess of Haddo; The Rt. Hon. the Earl of Crawford and Balcarres, K.T., P.C., LL.D., F.S.A. (Hon. Fellow R.I.B.A.); The Rt. Hon. Viscount Lee of Fareham, P.C., G.C.B., G.C.S.I., G.B.E. (Hon. Fellow R.I.B.A.); The Rt. Hon. Viscount Sumner, G.C.B. (Treasurer of the Inner Temple); The Rt. Hon. Lord Danesfort, K.C.; The Rt. Hon. Lord Carson, P.C., and Lady Carson; The Rt. Hon. Lord Riddell (Hon. Associate R.I.B.A.); The Hon. Mr. Justice Swift; Sir Frederic Kenyon, G.B.E., K.C.B., D.Litt. (Hon. Associate R.I.B.A.); Sir Malcolm Mellisraich, K.C.M.G., K.C.; Sir William Llewellyn, K.C.V.O. (The President, The Royal Academy) (Hon. Fellow R.I.B.A.); The Very Rev. W. R. Inge, C.V.O., D.D. (The Dean of St. Paul's); Sir John Rose Bradford, K.C.M.G., M.D. (The President, The Royal College of Physicians); Major-General Sir Fabian Warr, K.C.V.O., K.B.E., C.B., C.M.G. (Hon. Associate R.I.B.A.); Lieut.-General Sir J. Talbot Hobbs, K.C.B., K.C.M.G., V.D., Hon. LL.D.; Sir Gregory Foster, B.A., Ph.D. (The Vice-Chancellor, the University of London); Sir Hugh Allen, K.C.V.O.; Sir Henry Wood, F.R.A.M., F.R.C.M.; Sir Ernest Wild, K.C. (the Recorder of the City of London); Sir George Fowler, J.P., and Lady Fowler; Mr. Alderman and Sheriff W. Phené Neal, J.P., and Mrs. W. Phené Neal; Major and Sheriff F. H. Bowater, C.C., and Mrs. F. H. Bowater; Sir George Washington Browne, LL.D., Hon. R.A. (The President, the Royal Scottish Academy), and Lady Washington Browne; Sir John Stavridi and Lady Stavridi; Sir Adrian Pollock (Chamberlain of the City of London) and the Hon. Lady Pollock; Mr. Walter Tapper, A.R.A., F.S.A. (Past President R.I.B.A.), and Mrs. Walter Tapper; Monsieur E. Pontremoli (The President, The Société Centrale des Architectes Français); The Rev. Canon F. H. Dudden, D.D. (The Vice-Chancellor, The University of Oxford); Mr. R. I. Tasker, J.P. (The Chairman, The London County Council); Mr. W. W. Grierson, C.B.E. (The President, The Institution of Civil Engineers); Mr. C. Herbert Bedells (The President, The Surveyors' Institution); Mr. R. Arthur Corbin (The President, The Institute of Builders); Mr. W. Reynolds-Stephens (The President, The Royal Society of British Sculptors) (Hon. Associate R.I.B.A.); Mr. F. Winton Newman (The President, The Architectural Association); Mr. T. Barron (The President, The National Federation of Building Trades Operatives); Mr. Gayford D. Munn (The Worshipful Master of the Carpenters' Company); the Rev. Cyril A. Alington, D.D. (The Headmaster of Eton College); Mr. F. R. Dale, D.S.O., M.C., M.A. (The Headmaster, City

of London School); The Rev. Canon S. A. Alexander, M.A. (Hon. Associate R.I.B.A.); Mr. Deputy F. Newson-Smith, C.C. (The Chairman of the City Lands Committee); Lieut.-Col. Cuthbert W. Whitaker, M.A., C.C. Deputy (The Chairman of the Special Committee of the City Corporation); Mr. J. B. Aspinall (The City Remembrancer); Lieut.-Col. T. C. Moore, C.B.E., M.P.; Mr. John Lea, M.A. (Registrar, the University of London Extension Board); Mr. H. M. Hake (Director of the National Portrait Gallery); Mr. A. A. Hudson, K.C. (Hon. Associate R.I.B.A.); Mr. W. R. M. Lamb, M.V.O., M.A. (The Secretary, The Royal Academy); Mr. F. R. Yerbury (Secretary, The Architectural Association) (Hon. Associate R.I.B.A.); Mr. A. G. White (Secretary, National Federation of Building Trades Employers); Dr. Arthur Ricketts, C.M.G.; Mr. Roy Robinson (Sub-Treasurer to the Inner Temple); Mr. Ian MacAlister, M.A. (Secretary, R.I.B.A.), and Mrs. MacAlister.

Mr. P. H. Adams; Mr. P. W. Adams; Mr. Sidney Adams; Mr. W. Naseby Adams; Professor S. D. Adshead, M.A., and guest; Mr. H. W. Allardyce; Mrs. H. W. Allardyce; Mr. W. H. Ansell, M.C.; Mr. John Arber; Mr. Percy H. Arber; *The Architect and Building News*; *The Architects' Journal*; *The Architectural Review*; Mr. Seymour C. Arding; Mr. Henry V. Ashley (Vice-President, R.I.B.A.); Mrs. Henry V. Ashley; Mr. Robert Astley; Mrs. Robert Astley; Mr. Astley, Jun.; Mr. Robert Atkinson; Mrs. Robert Atkinson; Mr. William Atkinson; Dr. K. D. Attenborough.

Sir Herbert Baker, A.R.A.; Lady Baker; Mr. F. G. Baker; Mr. A. H. R. Bailey; Mr. Oswald H. C. Balfour, C.M.G.; Mr. Douglas C. Bartley; Mr. J. F. Carnuthers Bell; Mr. R. Anning Bell, R.A., R.W.S., R.B.C., Hon. LL.D. (Hon. Associate R.I.B.A.); Mrs. R. Anning Bell; Mr. Harold Bellman; Mr. Albert A. Bendon; Mr. John Bennett (The President, Devon and Cornwall Architectural Society); Mrs. John Bennett; Mr. T. P. Bennett; Mr. A. Strachan Bennion; Mr. William T. Benslyn, A.R.C.A.; Mrs. William T. Benslyn; Mr. F. R. Betenson; Mrs. F. R. Betenson; Mr. E. C. Bewlay; Mrs. E. C. Bewlay; Mr. W. Bingham, J.P.; Mr. Eric L. Bird; Mr. Louis Blanc; Mr. H. Chilton Bradshaw; Mr. Walter Brand (The President, Leicester and Leicestershire Society of Architects); Mr. Martin S. Briggs; Mr. Herbert T. Buckland; *The Builder*; Mr. F. M. Burgess; Mr. Albert Burton; Mrs. Albert Burton; Mr. A. J. Burton; Mr. C. McArthur Butler (Secretary, R.I.B.A. Registration Committee); Mrs. C. McArthur Butler; Mr. Alexander Cameron, M.P.; Lieut.-Col. H. P. L. Cart de Lafontaine, O.B.E., T.D.; Mr. A. N. Cathcart; Mrs. A. N. Cathcart; *The Central News, Limited*; Mr. R. M. Challice (The Chairman of the Exeter Branch, Devon and Cornwall Architectural Society); Mr. Louis Le B. Chapin; Mr. John A. Cheaton; Mr. A. J. Church, D.S.O., M.C., M.P.;



*The City Press*; Mr. Charles J. Clark; Mrs. Charles J. Clark; Mr. H. Chatfield Clarke; Mr. J. S. Cleland; Mrs. J. S. Cleland; Mr. L. Carter Clout; Mr. W. T. Cockle; Mr. A. J. Cokinnis, F.R.C.S.; Mr. J. Compton, M.A.; Mr. H. Courtenay Constantine; Mrs. H. Courtenay Constantine; Mr. H. H. Connybeare; Mr. Ernest Cooper; Miss Cooper; Mr. H. C. J. Cornelius; Mr. J. E. Cowie; Mr. Frank Cox; Mrs. Frank Cox; The Rev. George L. Craven; Mr. L. A. Culliford; Mr. Ewart Culpin; Mr. Patrick Cutbush.

*The Daily Telegraph*; Miss Vera Daley; Mr. Charles J. Dawson; Miss Dawson; Mr. Harvey A. Dawson; Mrs. Harvey A. Dawson; Mr. H. H. Dawson; Major Basil C. Deacon (The President, Northamptonshire, Bedfordshire and Huntingshire Association of Architects); Mr. John L. Denman; Mr. H. W. Dickens; Mr. H. Alderman Dickman, M.C.; Mr. Rudolf Dircks (Librarian and Editor, R.I.B.A.); Mr. J. H. Downey; Mr. Duckering; Mr. James B. Dunn; Mr. Harold G. Dyke; Mrs. Harold G. Dyke.

Mr. J. Murray Easton; Mr. C. Ernest Elcock; Mr. D. G. Ellis; Dr. Claude Elman.

Mr. Harry S. Fairhurst; Mrs. Harry S. Fairhurst; Colonel F. N. Falker, O.B.E., T.D.; Mr. P. R. Fincher; Captain Hugh Fletcher, R.N.; Miss Fletcher; Mr. Walter Ford; Mr. F. Lindus Forge; Mr. F. Fortescue; Mr. Arthur Franklin; Mrs. Arthur Franklin; Mr. J. Hutton Freeman (Clerk to the Worshipful Company of Carpenters); Mrs. J. Hutton Freeman.

Mr. George Gee; Mr. J. Herbert Gledhill; Mrs. J. Herbert Gledhill; Mrs. James Gledhill; Mr. S. G. Gordon; Mr. Allan Graham; Professor Frank S. Granger, D.Litt., M.A.; Mr. A. J. Green; Mr. A. W. Green; Mrs. A. W. Green; Miss Green; Mr. Douglas Green, O.B.E.; Mr. W. H. Gunton.

Mr. Hackforth-Jones; Mrs. Hackforth-Jones; Mr. E. Stanley Hall, M.A. (Vice-President R.I.B.A.); Mrs. E. Stanley Hall; Mr. Rowland Hall; Mr. W. J. Hall; Colonel Wilfred J. Hardcastle (The President, South Eastern Society of Architects); Mr. Charles W. Harris; Mrs. Charles W. Harris; Lieut.-Col. Harrison, C.M.G., D.S.O.; Mrs. Norman Harrison; Mr. W. Alexander Harvey; Mrs. W. Alexander Harvey; The Rev. Dr. Haynes; Mr. Everard J. Haynes, B.A. (Secretary, Board of Architectural Education); Mrs. Everard J. Haynes; Mr. A. B. Hayward; Mrs. C. Forester Hayward; Mr. Percy G. Hayward (Chairman, Southend and District Chapter, The Essex Society of Architects); Mr. William Haywood; Mr. Oswald Healing; Mr. Noel Heaton, B.Sc., F.C.S. (Hon. Associate R.I.B.A.); Mrs. Noel Heaton; Mr. A. H. Hennahaw; Mr. Fredk. G. Hicks (The President, Royal Institute of the Architects of Ireland); Mr. G. H. B. Hicks; Mr. E. J. W. Hilder; Mr. H. Peter Hing; Mrs. H. Peter Hing; Miss Hodge; Mr. Arthur J. Hope; Mr. T. O. Hope; Major T. Cecil Howitt; Mrs. T. Cecil Howitt; Miss E. E. Hudson; Mr. A. A. Hughes; Mrs. A. A. Hughes; Mr. T. Harvey Hull; Mr. Francis J. Humphry; Mr. V. C. Hunt; Mr. Harry Hutt (The President, Berks, Bucks and Oxon Architectural Association); Mrs. Harry Hutt.

Sir Edward M. Iliffe, Bart.

Mr. Sydney Jaques; Mr. C. H. James; Mr. Gilbert H. Jenkins; Mrs. Gilbert H. Jenkins; Mr. G. L. M. Jenkins; Mr. J. J. Joass; Mr. William Johnson; Mrs. William Johnson; Mr. Francis Jones; Mrs. Francis Jones; Lieut.-Col. W. Judge.

Mr. Arthur Keen; Mr. Paul Kelly; Mr. Sydney D. Kitson, M.A., F.S.A., Hon. Secretary R.I.B.A.; Miss Elisabeth Kitson; Mr. T. H. Knight; Mr. John Knox; Mrs. John Knox.

Mr. D. M. Laird; Mr. H. V. Lanchester; Mr. E. H. Lané; Mr. A. M. Langdon; Mrs. A. M. Langdon; Sir Walter Lawrence, J.P.; Miss Gipsy Lawrence; Mr. W. J. Leahy; Mr. A. E. Leonard; Mr. A. S. R. Ley; Mr. Reginald W. Lone; Mr. Percy W. Lovell.

*The Manchester Guardian*; Mr. Charles Marriott (Art

Editor, *The Times*) (Hon. Associate R.I.B.A.); Mr. Edward Maufe, M.A.; Mrs. Edward Maufe; Mr. Fred May; Mrs. Fred May; Mr. G. F. McGrath; Mr. Oswald P. Milne; Mr. G. R. Neville Minchin; Mrs. G. R. Neville Minchin; Mr. H. T. Mitchell; Mr. E. C. P. Monson and guest; Mr. Burford Morrison; Mrs. Burford Morrison; Mr. Harold E. Moss; Mr. H. R. Mosse, M.D.; Mrs. H. R. Mosse; Mr. Arthur Mountford; Mrs. Arthur Mountford; Mr. William Muirhead; Mr. Alan E. Munby, M.A.; Mrs. Alan E. Munby; Mr. John Murray (Luton); Mr. John Murray (London).

Mr. D. Barclay Niven; Miss Niven; Mr. E. Bower Norris. Mr. L. J. Ollier; Mrs. L. J. Ollier; Mr. Alfred A. Ospalak; Mr. David Ospalak.

Hon. H. A. Pakington; Mrs. Pearson; Mr. Edward S. M. Perowne; Mrs. Rees Phillips; Mrs. Rees Phillips; Mr. W. B. Phillips; Mr. W. T. Plume (Hon. Associate R.I.B.A.); Mr. A. Carden Pool; Mr. Arthur H. Pott; Mr. A. H. Powell; Mr. G. P. Powis; Mr. A. N. Prentice; *The Press Association, Limited*; Mr. H. Westbury Preston; Mrs. H. Westbury Preston; Mr. Charles Pritchett; Mrs. Charles Pritchett; Mrs. H. Purdon; Mr. W. H. Purnell.

Mr. H. Ridout; Mr. A. L. Roberts (Hon. Secretary, Hampshire and Isle of Wight Architectural Association); Mrs. A. L. Roberts; Mr. R. L. Roberts, M.A.; Mr. Howard Robertson, M.C., S.A.D.G.; Mr. Louis S. Robertson; Major Vivian Rogers, D.S.O., M.C.; Mr. H. Mordaunt Rogers; Mrs. Alfred Rosenzweig; The Rev. Dr. T. H. Ross, M.A., F.R.C.O. (Hon. Associate R.I.B.A.); Mr. S. H. Rowbotham; Mr. C. Rowley.

Mrs. H. M. Sayers; Mr. John Scott; Mr. J. Douglas Scott; Mrs. J. Douglas Scott; Mr. W. Gillbee Scott; Mr. B. Scruby; Mr. H. D. Searles-Wood; Miss Eustyn Shackleton; Mr. Alfred Skeggs; Mr. G. J. Skipper; Mr. A. W. Smallwood; Mr. J. Arthur Smith (The President, Hampshire and Isle of Wight Architectural Association); Mrs. J. Arthur Smith; Mr. Alec Smithers; Mrs. Alec Smithers; Mr. F. S. Snow; Mr. Louis de Soissons, O.B.E.; Mrs. Louis de Soissons; Mr. E. W. Spiers; Mr. C. D. Spragg (Assistant Secretary R.I.B.A.); Mr. W. P. Steel (Assistant Librarian R.I.B.A.); Mr. D. A. Stewart (The President, Royal Incorporation of Architects in Scotland); Mr. J. S. Stewart-Wallace, C.B.; Mr. C. S. Stone; Mrs. C. S. Stone; Major T. D. Stoward, M.C.; Mr. Frederick Sutcliffe; Mr. G. Sutton (Clerk to the Leathersellers Company); Mr. F. P. Symmons.

Sir Henry Tanner, C.B., I.S.O.; Mr. Douglas G. Tanner; Mrs. Douglas G. Tanner; Mr. Edgar A. D. Tanner; Mr. L. I. Tanner; Mr. Sydney Tatchell; Mrs. Sydney Tatchell; Mr. John M. Theobald; Mr. Graham Thompson; Mr. Morris Thompson; *The Times*; Mr. F. Gordon Troup; Mrs. F. Gordon Troup; Mr. Grahame B. Tubbs; Mr. Percy B. Tubbs; Mrs. Percy B. Tubbs.

Dr. Raymond Unwin; Mr. Austin Vernon; Mrs. Austin Vernon.

Mr. E. Holsworth Walker; Mr. D. T. Wallis; Mr. Thomas Wallis; Mrs. Thomas Wallis; Mr. E. T. Watkin (The President, North Staffordshire Architectural Association); Mr. Maurice E. Webb, D.S.O., M.C., M.A.; Mrs. Maurice E. Webb; Mr. E. Berry Webber; Mr. Harry Weinberg; Mr. F. Wheatland; Mrs. B. A. Whitaker-Ellis; Mr. Victor Wilkins; Mrs. Victor Wilkins; Mr. Norman Wilkinson; Mrs. Norman Wilkinson; Mrs. Caradoc Williams; Mrs. D. Willis; Mr. Geoffrey C. Wilson; Mr. Geoffrey C. Wilson; Mr. W. L. Wood; Lieut.-Col. F. A. Woodcock, D.S.O.; Mr. John Woollatt; Mr. G. Grey Wornum; Mrs. G. Grey Wornum; Mr. John L. Worsfold; Dr. Percy S. Worthington, M.A., F.S.A.

Mr. T. C. Yates; Mr. E. Alex. Young; Mrs. E. Alex. Young.



# Science and the Art of Architecture

## An Introduction to the Study of the Causes of the Disturbance of Traditions

[AWARDED THE R.I.B.A. SILVER MEDAL, 1930.]

BY RONALD AVER DUNCAN [A].

### CHAPTER I.

#### CONCERNING TRADITION.

"All that we are is the result of what we have thought; it is founded on our thoughts, it is made up of our thoughts."

GAUTAMA BUDDHA.  
THE DHAMMAPADA.

ARCHÆOLOGY has proved that architecture and the decorative and plastic arts provide a sure indication of the qualitative as well as the quantitative values of a civilisation. Even in the absence of any other evidences, the history of the rise and decline of a culture may be clearly traced in the remaining fragments of buildings. The trained observer is able not merely to reconstruct the social organization and economic system, but to deduce beliefs and compute moral worth from architecture and its attendant arts. As an activity of prime import, architecture responds with great sensitiveness to all those deep-rooted social impulses which are but half consciously appreciated at the time by the individual. This significant aspect of the art has not failed to impress itself upon the philosopher, and no philosophy is complete that leaves out of account this vital activity, seeking not only to comprehend the material needs that call for constructive effort, but the mental processes that determine its character. It is, however, a common failing of historical studies to be concerned with effects to the exclusion of causes. Effects are as the display of symptoms to the physician—phenomena from which to deduce a law of causes.

We are confronted to-day with the spectacle of changes in architectural expression which are of such a nature as to command more than passing attention. We may be sure that they do not represent the normal fluctuations of fashion and fancy, for they are too comprehensive and of at least a century's duration. They bear all the character of responses to fundamental changes in impulse. That these changes are not more generally appreciated is due to that attitude of mind which considers as inevitable the continuity of any given social organization. The evolution of a tradition is so slow a process that it assumes for those immersed in immediate activities an appearance of permanency which is belied by history.

The study of the origins of civilisations shows that

\* Concept.—A general notion; the image or idea formed in the mind; a mere fancy (Shakespeare). Schopenhauer in his philosophy uses the term concept in reference to reasoned ideas only.

out of intuitive impulses and half-formed ideas is evolved the germ of a social system; slowly it finds expression in activities. It grows from simplicity to complexity. Any defects inherent in its early concepts\* are carried forward and inevitably magnified as the more complex structure is built up. So long, however, as the concepts are capable of controlling and vitalising activities they are not readily revised or abandoned, but when a social structure shows signs of losing its unity it is a sure indication that the concepts upon which it was founded are no longer sufficiently widely held as to dictate the character of development. Hesitancy and the tendency to call in question the virtue of fundamental principles are symptoms of the decline of a tradition. In the full flower of a culture the desire to analyse and cast about for fresh principles is rarely found. The automatic and natural response of the activities neither calls for nor encourages deviations. Under such conditions knowledge is sought not for the purpose of evolving new concepts, but rather to extend or establish more firmly those that exist.

The search for knowledge is entered upon for two widely differing reasons; the one has as its objective the establishment of less erroneous concepts, the other is sought in order to form a store of one kind only, thereby striving to render effective some particular activity which is to be progressive only within the limits of an accepted principle. The former type of knowledge may prove destructive of the entire fabric of the second, attacking as it does the principles upon which the latter was founded. Knowledge is always purely relative and there cannot be an absolute fixation of principles; there is a periodic process of establishing, destroying and rebuilding which entails the recasting of the activities in a new mould. It is for this reason that human progress is relatively slow. Prime concepts are not changed with frequency, for the quality of mind capable of perceiving defects and attempting the establishment of alternatives is an extremely rare possession. The majority of the members of a community act intuitively, accepting concepts from the traditions of their race, and are content to acquire a workaday knowledge to serve the activities in which they are immersed. Thus it is that knowledge which compels the changing of concepts is often definitely opposed, for its intrusion may necessitate the laborious process of rebuilding the entire structure of knowledge acquired by practical experience.

In the field of artistic creation there is a dual reason



for opposition to any disturbance of accepted principles, for not only may changes prove to be destructive of the craft tradition and working knowledge, but are apt by mental confusion to paralyse temporarily the intuitive faculty.

During any period when concepts are in a state of revision, strong individualism is apparent. This is inevitable and due to the absence of any general acceptance of principles. There can be no fixed symbolism or often not even a common ground for emotional expression, for the unifying power of a common objective is lost. In these periods the attitude of the artist of the highest type is to let intuition alone direct him and thus to avoid the reasoning out of new issues. The generality of artists who belong to the category of craftsmen continue to work in the traditional manner with increasing loss of significance and power until their work reaches a stage of complete devitalisation.

The first establishment of new concepts has always been by the minds of the few and by the few comprehended, but, with the lapse of time, if the natural instincts of the many are not violated by such concepts, they become embodied in the culture of a people through a process of apprehension rather than comprehension.

We cannot, therefore, expect to find any immediate reflection of such changes of concepts in the arts any more than they can be reflected in the social organisation. Literature and poetry may give expression to the new ideas in isolated instances without necessarily showing any novelty of form; painting and sculpture can, by reason of their possible detachment from any material considerations, make individual experiments, but in truth all the arts must await the extensive penetration and a fairly general acceptance before they can give coherent expression to new ideas. Architecture is the least amenable of the arts to individualist experiments; the complexity of its execution, the intimate relationship it bears to all the factors of communal existence render it ill adapted as an art to express personal emotions. Moreover, to excite an interest real and general it must have a symbolism immediately comprehensible by the great majority of spectators. It is essentially a communal art and is, therefore, subjected by necessity to a continuity of tradition from which it is slow to deviate. The appearance of radical changes is a sure indicator of fundamental shiftings of basic concepts, as no single factor in social life or economy is of itself sufficiently powerful to alter the line of development of an architecture.

The history of European architecture gives us the picture of two fundamental changes in building tradition, both intimately connected with changes in concepts of which they are in truth the expression—the collapse of classical culture and the transition to the mediæval, and the shifting of the mediæval to the Renaissance.

Among ancient peoples drastic changes in architectural style usually originated from conquest and invasion. They indicate the imposition of new concepts with their counterparts in expression in religion, symbolism and ritual, as well as social organisation, as mere differences in craftsmanship alone can have no far-reaching effect. In cases where the conquerors have themselves been lacking in that culture which is the product of settled conditions, the result has been a period of pause or even chaos, but ultimately the imported concepts bring about a difference in expression, whatever borrowings the invaders make from the superior technical skill of the invaded.

The study of the arts and more especially of architecture has been too obsessed by the obvious mechanism of craft development to seek out the determining principles which underlie "style," that "will to form" which predestines the nature of form itself. For example, to imagine that the happy chance in the possession of such a building material as marble contributed anything but a facility to the Greeks, and that logic, order and subtlety, qualities of their mind, could only find expression under favourable geographical and geological conditions is to misinterpret the significance of æsthetic effort. A logical use of material is the outcome of a logical mind. The Greek spirit is discernible whatever material they employed. The domination of their culture in the Mediterranean was a domination of superior quality of outlook, not only of craft skill.

To-day history and such sciences as archaeology and psychology render it possible to guess at root causes and to achieve a measure of comprehension of a culture becoming as well as become.

Gibbon, in his history of *The Decline and Fall of the Roman Empire*, rightly appreciated the disrupting power of new concepts and apportioned much blame to the penetration of Christianity. He does not, however, give credit to the superior vitalising capacity of Christian beliefs, not as expressed in a fully developed and working social system, but in the realm of ideas. Reviewing the destruction of a complex social organisation and all its material prosperity, he merely deplores the inevitable, for had the principles which served to build up and control Roman social organisation been capable of indefinite expansion so as to direct all future developments, his account would never have been written.

It is clearly evident that so long as concepts maintain sufficient vital force to enable them to energise and qualify activities, there is a general development on established or traditional lines. If, however, concepts are revised the activities will ultimately answer to the change as a needle to a magnet.

We can observe in Roman Architecture the drift to a gross materialism from the puritan spirit of the early days of the Republic. The revivifying concepts came too late to be grafted on to the existing organism to



which they were opposed in principle, but they survived the destruction of the Western Empire to serve as a basis for the social structure of the Middle Ages. The Eastern Empire, which comprised a population long imbued with beliefs analogous to Christianity and not subjected to invasion by successive waves of migrating peoples, was more easily welded together culturally to form the Byzantine Empire. Here the material experience of the classical world was not lost but transformed in its expression. The Greek not wholly submerged by the Roman conquest arises to direct revitalised æsthetic activities.

The second disruption of cultural tradition in Europe at the Renaissance presents factors which do not enter into the first. The question of nationality is not so intimately interwoven with arts and culture, for although the Western Church had failed of its purpose to establish the Holy Roman Empire out of diverse races and nations in a practical sense, it was singularly successful in the cultural. For if local idiosyncrasies and details are overlooked, it is possible to perceive Western Europe as one in æsthetic expression. Uniformity of concept, the result of the teaching of the Church, was mainly responsible.

The gradual loss of vitality, and consequently of growth, within the Church itself resulted in a rationalism of belief which was lacking in elasticity. Under such conditions, the only possible means of maintaining an undeviating continuity in the face of new concepts of vital import was to attempt exclusion and seclusion. This state cannot be maintained indefinitely whatever the circumstances, but it certainly cannot be achieved by an ecclesiastical body lacking absolute power. Although the unity of the Church was destroyed, the cultural unity of Europe remained, with the racial and national characteristics entirely subordinated to the main characteristic of European. The reason that national characteristics did not become unduly dominant at the Renaissance was in part due to the exploitation of the invention of printing, which, in spite of the difficulties presented by differences of language, enabled knowledge to be disseminated rapidly and provided the cultural bond.

The most vital factor of the Renaissance was the assertion of the right of the individual to acquire knowledge for himself and freedom to choose the source.

That classical learning should have obsessed the schools is due to the natural tendency to ransack existing sources before beginning original experiments from which to draw entirely new conclusions. The turning away from the blind alley in which mediæval philosophy and the arts and sciences had lost themselves, resulted automatically in renewed contact with the forgotten culture of the classical world. There was stock enough here on which to draw for centuries. The Renaissance, having no basis for scientific analysis except

inexact historical knowledge, re-explored much ground unnecessarily and accepted as valid much that had already once proved defective.

Although the classical source of knowledge coloured all the activities of life from the fifteenth to the eighteenth centuries it was but a colouring. It is a curious fact that as more and more exact information was available about the classical world, and it became increasingly possible to apply this knowledge to a re-expression of a past manner of living, so the knowledge declined as a source of inspiration. This is clearly mirrored in architecture where, for a time, the free use of classical motifs, merely as so much design material, resulted in great vitality; but ingenuity in the use of a given series of forms cannot indefinitely support development, and the art fell back upon a scholastic formalism lacking in inspiration and significance.

The growth of autocracy as a substitute for the feudal system is significant as it provided a form of centralisation which acted as a unifying factor in national culture. Such forms of government have always been provocative of display, which is in some degree essential to their maintenance. Autocracy, therefore, proved not only a lavish patron of the arts in itself, but the system set up a rivalry in display amongst the members of the court and imitation *ad absurdum* among the lesser gentry. This rivalry was not contained within the boundaries of each individual nation, but was the direct cause of borrowing ideas from extra national sources.

The democracies of the period are represented by the Free Towns of the Low Countries and Germany and, in a measure, England. Their contribution in the field of architecture was primarily the dissemination of ideas of comfort and convenience as opposed to pomp and display, which were widely disseminated by trade contacts. These are in part responsible for the maintenance of an international culture in Europe, in spite of divisions of race and language which was the legacy of the Middle Ages.

The Renaissance, obsessed as it was with the exploration of the treasure trove of Classical knowledge and the adaptation of a ready-made culture, was slow to make use of its freedom to seek knowledge outside this field. Classical learning provided no precedent for the research method, which is the examination of phenomenon by experiment and the correlation of facts from which to deduce natural laws. Nevertheless the method originated in the early days of the Renaissance when it aroused strenuous opposition, but an opposition which was not directed against all those changes of philosophy and form imposed by the adoption of classical ideas. The true reason is not far to seek, for the research method which we now call the scientific, resulted in an attack on concepts necessitating a fundamental revision of beliefs and so it was strenuously opposed alike from ignorance, prejudice and vested interest. Although the



seventeenth century witnessed great advances in scientific thought, little or no practical application was possible, for the data was too scattered and many vital factors remained unexplored or unsuspected. Material existence was little affected, but a far-reaching disturbance of philosophy and religious dogmas resulted from the gradual penetration of the new concepts.

## CHAPTER II.

### PURE SCIENCE AND PHILOSOPHY.

"We are in the process of discovering a whole new world, nothing less."

SIR OLIVER LODGE.

*Science and Human Progress.*

In *Revolutions of Civilisation* Sir Flinders Petrie says: "The meaning of life has in all ages been the goal of human thought. The search for the cause and effect of the changes that man has undergone has laid the foundations of his religion and philosophy." He uses his wealth of archaeological knowledge to prove the truth of this axiom by presenting its operation over a period of ten thousand years and confronts us with its expression in the arts. But in the whole history of mankind there has been no greater quickening of thought than that which has resulted from the application of the scientific method of enquiry established at the Renaissance. It is therefore legitimate now to concern ourselves simply with the formation of this attitude of mind, leaving the study of effects for later consideration.

The term "science" is now very loosely applied, but it is generally used to denote the physical and natural sciences. It is also, with the addition of a qualifying word, used in connection with studies of a different nature; thus we speak of political, moral or economic science and we further refer to many subjects as being examined in a scientific spirit. In its broad sense the term "science" may be used to denote systematised knowledge of any kind and the science will be intermediate between the vague and loose knowledge of the "plain" man on the one hand and philosophy as the *scientia scientiarum* or comprehensive system of knowledge which seeks to embrace the results of the special sciences in a single world view on the other. The meaning of "science" has become the application of a particular method which is the product of an attitude of mind.

That science should spill over into philosophy is inevitable, for the establishment and co-ordination of facts by the individual will always tempt him to place his whole concept in line with them. Thus it is common to find physicists and mathematicians especially engaged in philosophic speculation, from which science cannot be entirely divorced.

The first society for experimental research—The Accademia dei Lincei—was founded in Rome in 1608.

Here were made the first of those co-operative efforts which have led to our modern scientific method. The seventeenth century contributed some of the greatest original thinkers and experimentalists in the whole history of human thought and effort. These men meant comparatively little to the world at large in their own time, but the nature and quality of their speculations as well as their method was provocative of consequences, ever widening in influence. A short list of names will conjure up to the mind what "The century of Genius" has given to the world in the matter of science. Bacon, Galileo, Harvey, Kepler, Newton, Descartes, Pascal, Huygens, Spinoza and Leibnitz, are among the first prophets of a new era which is still in the process of fulfilment. All branches of mathematics and physics were the best served by the period, and the Newtonian theories, for example, remained largely undisturbed until well on in the eighteenth century. The period led up to the establishment of the general belief "That the world is a succession of instantaneous configurations of matter," and scientific thought began to be satisfied by a theory of completely materialistic mechanism.

The eighteenth century carried forward on the basis of the scientific ideas established in the seventeenth; and little that was fundamentally new was propounded, although much development of detail took place, but we get the introduction to modern chemistry in Lavoisier, and to electricity in Galvani and Volta. The nineteenth century witnessed the continued and increasingly rapid advance in all branches of science due to co-ordination, but the characteristic and most marked element of progress is in the field of technology, which was entirely without precedent. Chemistry as a practical science is implemented by the atomic theory of Dalton, and the study of electro-magnetic phenomena by Ampère and Faraday, culminated in the theories of Clerk Maxwell.

Apart from the more obvious practical results of scientific researches of the century there is nothing that has attracted the attention of "the man in the street" so much as the theories of evolution mainly associated with Darwin. Towards the close of the eighteenth century the fixity of species began to be questioned. Transformism was an early attempt to explain the effort of the living organism to adapt itself to the conditions in which it lives. The naturalist Lamarck propounded the theory that the individual was responsive to its circumstances and consequently developed this or that characteristic of structure, and that individual adaptations were transmitted to the offspring. Proceeding with the same subject of enquiry Darwin published in 1859 *The Origin of Species by Means of Natural Selection*, followed up by his book *The Descent of Man*, which brought the study into the field of interest of a wide public. The whole subject became entangled



with religious and moral ideas, producing the most heated controversy that science had experienced since the earliest days of its conflicts with ecclesiastical dogma.

Closely associated with these studies is the general advance of physiology. Medicine is finally released from the bonds of superstition, making great progress through the work of such men as Pasteur, Lister and Koch.

The close of the century was unproductive, but the twentieth century has been ushered in with a display of great activity in the field of mathematics and physics. Physics, "shortly before the Relativist Landslide had begun to make itself felt, had been subjected to two shocks of the greatest magnitude. The disturbance has not yet settled down." Matter which has stood for centuries as the most fundamental thing in the universe, as viewed by science was swept aside, leaving the electron as the basis of the objective world; then came the establishment of the quantum theory which also originated from researches into the structure of the atom and electro-magnetic phenomena. These theories necessitate a complete revision of the materialistic concepts of the preceding scientific thought. It is clear that the relatively simple faith that science displayed in the ultimate possibility of the complete explanation of phenomena has had to be abandoned for a complexity in which the fundamental limitations of the human make-up must be counted as factors, since these form an integral part of many problems. The inevitable result will be to increase the importance of psychology and philosophy.

In the narrow sense the term "Philosophy" is identical with metaphysics, but in its wider sense it embraces metaphysics, logic, ethics and psychology. These last three may perhaps reasonably claim to be special sciences amenable to the research method but they cannot rest upon that basis solely, dealing as they must with the meaning of meanings.

It was Aristotle himself who first called metaphysics philosophy to which all the special sciences must bow, but though it is still the highest of all sciences, it cannot now swallow up or supersede them but rather takes its place beside them in the general classification of knowledge. It may be defined as concerned not with any particular aspect of what exists taken in abstraction from other aspects, but with the ultimate nature and principles of the *real* to the limit of contemporary understanding.

The conception of philosophy has undergone many modifications since Aristotle's day, although the aim has been the same at all times—namely the attainment of the most fundamental knowledge, but naturally the conception of that knowledge, the way in which, and the extent to which it can be attained, has varied alike with internal conditions and cultural bias. In mediæval

times philosophy was entirely subordinated to theology, and the schoolmen, in spite of their deference to Aristotle's doctrines, were separated from him by the impassable barrier of ecclesiastical dogma. The release from this restriction of thought enabled philosophy rapidly to regain the position occupied by the Greek philosophers; but this position was not long tenable, for the relative simplicity of Greek conditions had given place to a complexity which was largely brought about by studies in the special sciences and their contribution to the knowledge of natural law. The enormous mass of facts to be digested by one individual was a very different task from that which confronted Aristotle, who summed up in himself the whole scientific knowledge of his age. The continued and rapid growth of this complexity is the chief obstacle in the way of presenting a complete and homogeneous philosophy to-day. Moreover, the intervening period of mediæval mysticism cannot be dismissed out of hand, reinforced as it is by mysticism drawn from other sources.

The scientists of the Middle Renaissance were also the principal philosophers of this age, for instance, Descartes, Leibnitz, Kant and Hegel, to mention only a few. The last named, although hardly a specialist in science, derived his facts from a wide range of positive knowledge and his works exercised a considerable influence on historical and humanist studies. Nevertheless, with Hegel, or rather with the subsequent reaction against the type of philosophy which he represents, there begins a profound change in the relationship between philosophy and science. Hegel's was the last great system which pretended to an absolutism of philosophy. Lotze, in his preface to *Logic*, says "it is obvious that I can propose nothing more than to set forth my personal convictions in such a form as will enable the reader to judge not only to what degree they are consistent with themselves but also how far they are capable of serving to unite the isolated provinces of our certain knowledge, in spite of the great gaps that lie between them, into a coherent view of the world bearing the character of completeness." This change of front was the inevitable result of the enormous extension and continually increasing specialisation of science, which have made it quite impossible for one man to think of comprehending in Hegelian fashion in one complete framework, the masses of material that are now available.

The difficulties presented have caused philosophy to take a less dominant position in the realm of knowledge. There are some to-day who would fain see metaphysics driven out once and for all and supplanted by the special sciences. It is clear that this cannot take place, as the impulse, deeply rooted as it is in the human mind, would reveal itself sooner or later in other directions. On the other hand, the doctrines of religions make a claim to dispense with metaphysical speculation since



they see in the practical certainties of religious faith the only true resting-place of man's belief. But even so, a difficulty is presented by the fact that the acceptance of this claim does not secure permanency of principles for religious belief is subject to revision by the process of revelation.

The modern position is obscured and lacking in any bond of unity between the special sciences, philosophy and religion, the situation being dominated largely by the purely material repercussions of scientific research.

Aesthetics as a study follow much the same course as theology, which is also that in some degree pursued by philosophy. There is a gradual tendency to separatism. All three fail to adjust themselves or to be adjusted by scientific thought in such a manner as to establish firmly a unity of concepts. The widening of the gulfs has been continuous although it has been gradual. Francis Bacon in the early part of the seventeenth century had comparatively little difficulty in reconciling his scientific views with religion and aesthetics, incorporating them in a philosophy which displays a unity of concepts.\* By the close of the century the possibility of such a unity had completely vanished. This position has remained more or less unaltered except to increase the difficulties. The uncompromising character of completeness of scientific thought of the later half of the seventeenth century was as much responsible as the inelasticity of philosophy and theology. Scientific materialism had comparatively little difficulty in substituting ethics for religious belief and replacing metaphysics by a clear statement of natural law, but it was confronted with a more difficult problem when called upon to account for aesthetic impulses. As a whole the subject was ignored or dealt with in such a manner that it obscured rather than elucidated causes. Classicism which lent itself to analysis and the establishment of a fixed code was readily embraced, but Gothic, non-European and primitive arts were brushed aside or totally ignored. The philosophy of Kant foreshadows the trend of aesthetic thought of the nineteenth century, which witnessed the revolt from classicism culminating in the Romantic movement. This revolt was due not only to the failure of the scientific method to incorporate a logical and complete aesthetic theory which could direct the arts, but was also the expression of a disbelief in the possibility of so doing upon the existing lines of "scientific concreteness." Schopenhauer, who was no little influenced by Goethe, maintained "that the 'concept' is of itself unfruitful in art which is a matter of feeling rather than intellect attaining its highest and happiest effects intuitively." Herein is expressed the flight from that scientific materialism which affirmed that instinct and intellect are the originators and con-

trollers of all activities. Schopenhauer made extensive researches into Eastern art and mysticism and his logic compelled him to discard a classicism which failed to include them in its scheme of aesthetics. Working upon similar data and premises Croce affirms that "knowledge is of two forms; it is either intuitive knowledge or logical knowledge; knowledge obtained through the imagination or knowledge obtained through the intellect; knowledge of the individual or knowledge of the universal." This involves a separation of the controlling influences of activities and even of the activities themselves, leaving to the individual his predilection or choice as to whether to be guided by intuition or intellect. Were it otherwise he would be forced to admit the ultimate superior directing power of the one or the other. The confusion in the arts set up by the Romantic movement appears likely to continue in the absence of any philosophic liaison between the special sciences on the one hand and the arts on the other, for the philosophic basis of the classical tradition of the Renaissance has been destroyed. There is nevertheless some seeking after a union of "creative faith and critical intelligence," some acknowledgment of the need to establish a relationship of faculties such as Professor Babbitt attempts in his critical philosophy.

### CHAPTER III.

#### APPLIED SCIENCE AND INVENTION.

"If the end be well all is well."

GEETA ROMANORUM.

The spectacular character of the achievements in the sphere of applied science during the last hundred years has obscured, by a direct appeal to the imagination, the proper relationship to the scientific thought of the seventeenth and eighteenth centuries. This period, by directing attention to the possibility of employing natural forces, not only founded the basis of modern applied science but also, indirectly, of mechanical invention. The chief objective of this activity has been economic, but it has also acted as an outlet for creative impulse and has consequently tapped off much energy which otherwise would have displayed itself in the minor arts, for these in the past have been its natural vehicle. Although many modern inventions of prime importance owe their origin to scientific research, many more are merely examples of ingenuity and belong rather to the realm of an experimental craftsmanship than to science.

This restless experimental impulse is peculiarly strong in the Nordic peoples and is found expressed in their earliest arts and crafts. It has paved the way for the mechanical developments of to-day and has also rendered the assimilation of novelties comparatively easy for the masses.

The progress in tool and machine making witnessed

\* The general attitude to art during the seventeenth century is reflected by the terms used in the Authorized Version of the Scriptures. Art—artful—cunning as "cunning workmen." [A.S. cunning=knowledge].



in Europe during the last hundred years is unparalleled in the history of mankind, and, even if it were unaccompanied by any revolution in thought, would deserve the most careful consideration. In the course of time this progress cannot fail to result in fundamental changes in the manner of living and the expressive arts. We are apt to accept our mechanical innovations so much as a matter of course that we fail to appreciate their effect upon us and the growing momentum of the changes they bring. Some of them date back to the early Renaissance; of these, first in time and certainly in importance is the invention of printing. The Chinese long before had used wood blocks, but it is the movable type first employed in Europe in the autumn of 1454 that has provided us with unprecedented means of disseminating and storing knowledge. From its conception the invention was rapidly developed and exploited, and before the close of the fifteenth century fifty German towns had established presses. Introduced into Italy in 1465, over one hundred and fifty firms of printers were at work in Venice alone by 1520. The process of printing since then has continuously developed with increasing facility and speed. The chief landmarks of its progress are the substitution of metal type for wood, machine movements, and steam power for clumsy hand presses. Stereotyping and electrotyping, the application of photography and process work are the more recent additions to its accomplishments. A world without printing would be now indeed strange to us, but we scarcely stop to think of the potency of this invention. The effect upon the arts has been vital, but to trace all the ramifications of its influence, both from the point of view of theory and practice, is subject matter for a volume. Printing played an important part in establishing the art of the Renaissance, and books provided in part a substitute for the mediæval guild system of training. The illustrated book was at once a source of inspiration to the craftsman and a disturber of his traditions; to-day economic photographic illustration is largely responsible for our eclecticism. Printing has made possible the wide dissemination of individual or clique ideas which in the absence of definite principles is unfavourable to any sort of steady development in architecture as well as in the plastic and decorative arts. On the other hand the invention has been wholly beneficial to the advance of scientific knowledge and without its aid no comparable progress could have taken place. It is a recording medium, an extension into time of the faculties of individuals giving permanence to thought.

Printing is in a broad sense the first of the series of inventions of communication, but no great step forward in this direction is to be observed until the application of steam power to machines. Within the last century were invented in rapid sequence the steamship, and

the locomotive, and the internal combustion engine applied to road transport. Once agreed that trade expansion is desirable, no effort that contributes to facility in transport can be considered as wasted; equal in importance are developments in communication, the penny post, telegraph, telephone and wireless. The progressive expansion of transport and communications, apart from its partly anticipated economic consequences, has had unexpected results upon traditional arts and crafts. This tradition is often based on, and certainly supported by the extreme conservatism of what are termed the peasant arts and crafts in which it has freedom only within the circumscribed limits of its formulae; but this very concentration for long periods render it capable of achievements denied to a more liberal, but indeterminate attitude. Lack of communications act as a sheltering wall to native arts and crafts, but once wider contacts are established they rapidly decline. Any artificial stimulation by romantically-minded folk, or even the earnest endeavour of those who desire to preserve much that appears good and valid, is doomed to failure, for not only are economic conditions changed, but the very effort involves the substitution of conscious endeavour for spontaneous action. Nothing provides such a conclusive proof of the effects upon tradition of a wider intercourse as the rapid disappearance of peasant costume in Europe. Most people will agree that lack of communications fosters and encourages the growth of local differences by leaving small communities at the mercy of purely local conditions of labour and materials and to the limitation of a circumscribed range of thought. But the converse is equally true, and easy communications have a tendency to unification not only nationally but internationally. The standard set up by the larger centres of population filter through the country and economic considerations enforce conformity.

One of the chief effects upon architecture is that the controlling influence of local geological formations has largely disappeared, for the economic position is such that the mere proximity of a natural building material will by no means compensate for easy quantitative production of some other material even if it be at a distance.

The railway was limited in its sphere of influence, but the motor-car has accomplished almost complete penetration, and what the railway achieved slowly the motor-car will complete rapidly and doubtless the aeroplane in due course will bring about similar results in non-European countries. The prospect distresses many, but it is a fact that has to be faced.

Any survey of applied science which was strictly confined to the period of the last hundred years would reasonably commence with the application of "power" to machinery. First steam, then gas, oil and electricity



provided substitutes for hand labour. The revolutionary change is hardly yet appreciated. Early in the century the correlation of scientific research and its many and various applications began to take effect upon commercial and industrial life; this delayed reaction was due in the main to the necessity to await the discovery of missing elements in metallurgical knowledge which alone could provide the means to improve the manufacture and manipulation of metals. It was primarily the requirements of machines that has led to the metal age. For example, the application of steel as a structural material for building was a by-product of other demands and was scarcely thought of fifty years ago.

The factory method of production, which has always existed in some form in a developed civilisation, has been so greatly extended by power-driven machinery that it now presents novel social features. The economic effect upon the humbler handicrafts has been to drive them almost out of existence. The character as well as the misapplication of this new means to increased production aroused the condemnation of such men as Ruskin and Morris, leaders of a school of thought which was opposed to the whole line of development. Both process and products were the subject of their scorn. They perceived the fundamental significance of the changes and sought to stem the tide by a revival of handicraft; this met with some measure of success, but the wider social application of their ideals has been entirely submerged by the economic conditions set up by the power-driven machine tool. It is logical to anticipate a great extension in the use of machines, for every effort will be made to increase production by this means and to remove the necessity for human intervention other than starting and stopping. Machine production has to-day almost entirely superseded hand workmanship, except for luxuries or works of art, and it is now rapidly extending to such complex operations as building in which machines are already employed in digging, mixing, hoisting and the like. This element of factory production, and the consequent changes in design, are of increasing importance to architecture, as building tends more and more to become a matter of the assembly of completely manufactured parts over which the building designer has no control other than selection and arrangement. In view of the changes in method it is remarkable that the effect on appearance has not been much greater than it is, and that design for machine production has been content to be merely imitative of hand workmanship. One fact emerges clearly—that machine-made articles require some measure of standardisation and mass production, and designs must be modified to meet these requirements.

The absence of deliberate design for the new pro-

cesses is remarkable, but such a condition of affairs will not exist indefinitely; it is no argument that the skill of the engineer makes it possible to adapt machines to accomplish almost any desired operation, however illogical or uneconomic. Historically, the influence of tools upon the crafts has always been of the greatest importance, and changes in the type of tools employed has always produced far-reaching changes in design; it is therefore not unreasonable to anticipate the same results in the future. Such changes as are now occurring are too ephemeral and conditions too unstable to admit of crystallisation into any definite character. In spite of the complex state of our civilisation, we are, as it were, dealing with the crude beginnings of a new era in craftsmanship, and there is as yet little sign of unity between design, method and material.

Whatever may be the new social problems created by an extension of the factory system, standardisation and mass production, it is safe to predict that there can be no reversion to handicraft methods, for the demands of an increasing population and the even more rapidly increasing demand for a higher standard of life can be met only by a continual augmentation of means and the elimination of hand labour. One of the chief objections raised against machine production is that it tends to destroy interest in work by removing from the individual workman any power to shape the final form of the product, and that to design has already become the sole prerogative of the highly-trained specialists who take no other part in production. It is possible to overstress the social importance of this, for at no time in history has more than a very small percentage of any community been engaged in activities entailing the employment of any creative faculty. It is, however, fairly obvious that more highly educated individuals cannot be wholly satisfied by mechanical repetitive employment, without compensation in some form such as increased leisure, with the means and method of employing that leisure.

The prevailing faith in mechanical appliances has led to an invasion of the house by the machine, and this is reflected in the demand for so-called labour-saving devices, but as these are confined to fitments they do not greatly affect appearance. There is, however, a growing desire to avoid drudgery which extends beyond the employment of machines and enters the province of form and decoration, or seeks to eliminate such essentially traditional features as the fireplace and moulded woodwork. It is by no means solely in the matter of machines that applied science is revolutionising the manner of living; in the guise of sanitation and preventative medicine it is determining values little considered in the past, such as light, air, cleanliness and drainage. The belief in the essential importance of these things is powerful enough to modify traditional building



requirements, and to create a demand for a form of town planning which will permit the whole community to enjoy the amenities they afford quite apart from their application to the internal economy of buildings.

The discoveries resulting from the researches chiefly concerned with medicine, such as bacteriology and physiology, are now being applied to agriculture. These bid fair, when coupled with the innovation of power-driven machines and transport, completely to revolutionise the conservative traditional character of this basic industry. The importance of these facts cannot be over-rated, for agriculture with a few exceptions is the most vital industry to a nation, employing and determining the character of the lives of a large proportion of its population. Changes of urban life are often of a transitory nature, but that which has power to alter also the tenor of rural life will achieve a lasting effect.

The main issues of applied science have no national boundaries. They tend by their economic significance to compel conformity and to be superimposed upon national character throughout the world. In so far as they are mainly European in origin, they appear to be spreading European culture, but there are now signs of a return flow from non-European countries. The imposition of this super-national character can be judged by the fact that all means of transport are taking on an international appearance: factories must be arranged and equipped in accordance with the latest industrial practice without regard to local tradition: specialised structures, such as hospitals, tend to a world-wide uniformity. With the gradual establishment of economic equality in production it would appear that ultimately, apart from considerations which must be paid to the individuality of a site, the sole factor which will always compel a definite variation in architectural form is that of climate, apart of course from fancy or desire.

#### CHAPTER IV.

##### ARCHITECTURE THE SOCIAL ART.

"The Fine Arts are always an expression of the historical antecedents, the intellectual, moral and material conditions, and religious beliefs of the peoples and epochs to which they belong."

CHARLES H. MOORE.

Architecture in its peculiar aspect of "the social art" is subjected not only to the full force of the changes wrought by the developments of Philosophy, Science and Technology, but also indirectly through the repercussion of their effects upon the life and habits of communities generally. It is in a very special sense a reliable indicator of conditions, being itself determined by them to a much greater degree than either the arts of sculpture or painting: these may reflect current thought and reproduce its effects, but

architecture is of the very substance of its age and forms one of the major components of its expression. There have been many attempts to define and limit the art, but, in the final analysis of a civilisation, all structures which indicate that purpose has been qualified by a regard for effect must be included in the category of architecture. It is certain that in the future the assessment of the quality of our civilisation, as measured by its architectural accomplishments, will be based not upon the merits of a few isolated works shorn away from their context, but upon all that mass of work which was not necessarily directed by professional designers. The architect is no longer the arbiter of elegance and fashion in the Mistress Art to the same extent that he was in the eighteenth century, and certainly does not control more than a fraction of the present total expenditure upon building enterprise. He may create temporarily a *milieu* of his own in which to work, but only in so far as he comprehends and uses the forces and means of his own time can he leave any lasting impress upon his age. Therefore what we must be concerned with is not the effects upon the special art of the architect only, but upon building as a whole. The preceding chapters have been devoted to the causes of the disturbance of social tradition generally and by implication to architecture, leaving to be dealt with here those special conditions which are the immediate concern of building.

In addition to the increased variety of natural building materials made available by modern transport, designers are faced with the problem of the proper employment of a large number of novel synthetic materials. The majority of these have been introduced for economic reasons, such as rapidity in construction and standardisation, as well as the cheapness of the material itself. No exception can be taken to a material on the grounds of its artificiality, for brick, that most ancient and universal of building materials, is artificial, but imitations and shams are objectionable in their intention, but failure, to deceive. The solution of the æsthetic problem is one that rests entirely upon the skill of the designer in rightness of choice and arrangement of the material. No æsthetic progress can be made in the use of new materials if they are capriciously compelled to take on ancient forms.

The commercial tendency is to eliminate natural products if they are not suited to factory processes, and the search is for materials readily adaptable to machine production, machine handling and rapid assembly. It is clear, and has already been noted, that an attempt will be made to bring building into line with industrial processes generally, by converting the old laborious craft methods into a business of assembly. The present system of cementing together



friable and absorbent materials which render the use of large quantities of water essential for building processes is unsuited to rapid construction, and attempts have already been made to find substitutes, more particularly so as to dispense with such internal finishings as plasters and cements.

Of modern materials, none has had a more potent influence upon building than steel. Wood, brick or stone have been the structural materials in the past, each one a dictator of architectural form. What forms will be the natural expression of steel and its offspring, reinforced concrete? The development of characteristic form has gone little further at present than to reduce stone and brick walls to mere skins, preserving the cast as it were of their old shapes. But the use of steel has increased the span of openings, augmented scale, reduced supports to isolated points small in area, and created sense-alarming cantilevers. In the plan it has brought about the substitution of rectangular units for the elaborate shapings of the Roman form re-introduced at the Renaissance.

It is becoming apparent also that both steel and reinforced concrete permit of a certain flexibility in the internal arrangement of buildings, for screens may be employed as a substitute for structural walling.

Inevitably changes in process and material have affected adversely the traditional type of building craftsmen, but the beginning of this degeneration dates back to the days of the coming of the architect in his capacity of super-designer. The handicraftsman's skill bears a definite relationship to his freedom to design; the gradual assumption by the architect of the sole right to perform this function has been one of the chief causes of the withdrawal of the more highly skilled craftsmen from the building trades to become themselves individualist sculptors, painters, carvers and modellers. The process began with the Renaissance and has now reached a stage in which few building craftsmen produce unaided any design which displays artistic merit.

Many of the striking changes in recent building design are due to special factors taken in combination: thus the "Skyscraper" owes its existence not only to the use of steel as a structural material, but also to the invention of the electric lift, and again the continually increasing proportion of void to solid in wall surfaces is due not only to improvements in glass making, but the use of steel for window frames and the introduction of central heating. The interplay of similar factors is bringing into being the multiple building which houses within itself a number of buildings; thus a "Skyscraper" may be composed of a hotel, a theatre and a church, as well as shops and offices. Such a complex structure cannot disclose by its appearance the special nature of its component parts; traditional reference and the association of

ideas must be abandoned for some expression which enhances its structural form alone.

A new dictation of form arises from the purely scientific analysis of requirements.

For example, it is now possible to determine acoustically satisfactory internal shapes for all buildings used as auditoria. Similarly a series of "reasonable shapes" is likely to be established for many structures requiring special qualities.

Associated with the economic necessity for increased speed of construction comes a factor comparatively new to the Western world—namely, the fact that permanency of construction, in many types of building, is no virtue, but may actually prove an obstruction to progress. A building, like its contents, frequently exceeds its life of usefulness, and the same economic laws which enforce the reconstruction of plant and machinery dictate the reconstruction of buildings. Thus the period of time that elapses between building and rebuilding grows ever shorter. Permanence as a desideratum in building, apart from certain kinds of monumental work, is largely rooted in the idea of establishing a fixed abode, the seat of the family, by which certain people are to be associated for all time with some definite locality; but this virtue appears to us to be waning in the same proportion as its economic significance. Western art has accepted this idea of permanence and generally has demanded materials to express this quality. The art of China and Japan, while making a less insistent demand for permanent materials, has suffered no loss of virtue in consequence.\*

If the augmentation of knowledge by science has as yet done the arts no service, it has, through its application and technology, provided the source from which commerce and industry have drawn all the power to achieve the remarkable advance of the last hundred years. This advance has been of necessity accompanied by important changes in the ownership and the nature of the direction of business enterprises. For example, in this country the need for capital to develop new processes in commerce and industry led up through many legal enactments to the formation of limited liability companies and their final sanction by the Company Law of 1862. In the past each shareholder of a company had been considered an owner, and, as such, responsible for the conduct and management of the business in which he was financially interested. This Act finally absolved him from all responsibility, leaving him only his capital liability. The effect has been to supply business enterprise with an abundance of money wherever it could be

\* By comparison with European building methods and materials those of China and Japan are, for the most part, of a much more temporary nature. Particularly is this the case in house construction, but, even in temple building, wood and lacquer predominate as materials for the superstructures.



made to turn to profit. Judged upon a purely quantity basis the results have entirely justified the system, but the "balance sheet" tends to become the sole test of virtue. This cannot very well be otherwise for the owners of the business have no interest in it other than to ask that it shall show profits.† The consumer, not the producer, becomes the individual who determines the virtue of the goods produced, and all he can do is to buy or refuse to buy. So the present day commercial method is the opposite of the process which directs the artist in his activities, as he is immediately concerned with his production and its virtue. Commerce and industry work for a demand even if it be artificially stimulated or created by advertisement. Thus the æsthetic quality of trade goods rests not upon the producer, but finally upon the culture and education of the great mass of consumers, to a much greater degree to-day than ever in the past.

The great material success of the modern industrial system has led to its application to almost every amenable activity and also by an economic reflex action it has compelled the system to be adopted for production even if contrary to precedent. It has become necessary to apply the process to building, as the old craft system tends to relegate it more or less to the realm of a luxury, like most products of hand labour. If a product is a necessity, failure to maintain an economic level having a proper ratio to all other productions and to wages and the standard of living may seriously endanger the internal peace of the State. Housing, for example, must be placed in such a category, and progress in the economy of production has become an urgent need, whatever break with traditional methods and expression it entails.

The complexity of modern civilisation has extended the field of architecture beyond the consideration of isolated buildings and related it to the organisation of towns: this restricts individualism as it calls for increased regulation and control in the endeavour to avoid chaotic conditions. It is reasonable to expect in the future the enforcement of regulations dictated by the especial needs of the age, without regard to architectural traditions.

Over and above the major factors discussed, in the matters of detail there are a thousand and one elements which introduce novel features into architectural composition, disturbing the association of ideas and causing incongruities to appear by the juxtaposition of the ancient and the modern. Long revered and accepted symbols are losing their significance, to remain with us only as meaningless decoration. Modern fixings and fittings, sanitation, lighting, heating and ventilating are contorted to pose as legacies from the

past, and the special novel requirements of the present day are fitted in as best they can to the ancient formulæ of building. An architectural tradition is no longer a living thing if it cannot find a place for, and inspiration from, such a wealth of material advantages, for architecture as the social art must take cognisance of them.

In the welter of the elements of the old and new there works that æsthetic impulse which seeks for harmony and unity, an impulse which cannot tolerate for long the discord of expressing conflicting ideas, but searches out that which is the dominant, and, discarding all that it cannot adjust or modify, strives to present in art a true reflection of the age.

The first concern of the subject has been to diagnose the symptoms and disclose the causes of the disturbance of architectural traditions, for only proof and clear recognition of the fact can explain or justify much modern architecture and art and remove from it the accusation of eccentricity or unwarranted individualism. Moreover, the understanding of causes is the only foundation upon which to establish a logical system wherewith to direct future activities. No more can be done here than to suggest three possible lines of action which are open to the architect, they are—

To continue to accept traditional formulæ.

To adopt an attitude of mere opportunism.

To seek to evolve and establish fundamental principles.

Of the first it must be said that such an attitude obviously cannot be maintained indefinitely, for it tends to cause art to lose touch with life. It reflects a fear of the disruptive forces underlying the creative impulse and seeks to harness these forces within a limiting technique. The danger is that a complete severance with past tradition is liable to occur as the result of the revolution which must ultimately take place.

The second is that which recommends itself not only to the commercially-minded, but also to those who accept the doctrine that the artist is controlled by the emotions of the moment, and is at his best if he leaves out reason and argument.

But the third line of action should commend itself to the architect, for, even if he can hardly hope to evolve a complete system at the present stage of accelerated evolution and unstable conditions, he may, perchance, make some contribution to a solution of the problem of the relationship of æsthetics to science, economics and industry, and act as a check upon a purely quantitative development of our civilisation. The peculiar position of architecture in relation to art on the one hand, and to almost every social need on the other, gives the architect an exceptional opportunity to correlate activities, and point out the path to designed beauty.

† This is the tendency, but of course there are many successful "one man" businesses, with the outstanding example of Ford, who until recently had no shareholders in his business.



Upon what lines may he attempt to establish fundamental principles? not upon the selection of abstract and purely psychological methods of analysis, for they afford insufficient liaison with the scientific method employed for all other forms of research; but upon an analytical method tending to a completeness which shall not only include the examination of fundamental æsthetic impulses and reactions, but also the relationships of art to the life of the time. Thus out of a fuller consciousness and understanding, taking cognizance of all human faculties, the architect may contribute to a philosophy which shall be comprehensive of both science and art.

## BIBLIOGRAPHY.

As the subject covers a very wide ground, the list of references has been confined to those works which have provided the basic evidence.

Work.	Reference to Chapters.
Architecture. W. R. Lethaby .. .. .	I.

Architecture, Mysticism and Myth. W. R. Lethaby .. .. .	I.
Things which are seen. Trystan Edwards .. .. .	I, IV.
Reason in Art. George Santayana .. .. .	I, II, IV.
Æsthetic. Benedetto Croce .. .. .	I, II, IV.
Revolutions of Civilization. Sir Flinders Petrie .. .. .	I, II.
The Decline of the West. O. Spengler .. .. .	I, II, III.
History of Ancient Philosophy. A. W. Benn .. .. .	II.
History of Modern Philosophy. A. W. Benn .. .. .	II.
Introduction of Modern Philosophy. C. E. M. Joad .. .. .	II.
Science and the Modern World. A. N. Whitehead .. .. .	II, III.
Science and Human Progress. Sir Oliver Lodge .. .. .	II, III.
Symbolism. A. N. Whitehead .. .. .	I, II, IV.
Artifex. J. Glog .. .. .	III.
My Life and Work. Henry Ford .. .. .	III.
To-day and To-morrow. Henry Ford .. .. .	III.
Discoveries and Inventions of the Nineteenth Century. R. Routledge .. .. .	III.
Discoveries and Inventions of the Twentieth Century. E. Cressy .. .. .	III.

## The Stockholm Exhibition 1930

BY LL. E. WILLIAMS [A.].



MAIN RESTAURANT, SHOWING CONSTRUCTION

The motto of the promoters of the Swedish Arts, Crafts, and Industries Exhibition, which opens this month at Stockholm is "An Ideal Home for Everybody," and large sections will be devoted to architecture and interior decoration. In many of these exhibits Herr E. G. Asplund, the chief architect of the exhibition, has exploited to the full the modern "functional" architecture

which seems to have been adopted in Sweden as a revulsion from the nationalist style which found its most complete expression in the Stockholm Stadhus.

The great restaurant is typical of this reaction, and being situated on a magnificent site in the centre of the grounds gives the keynote of the exhibition. This restaurant is about 150 feet long and 30 feet high. In





CORNER OF RESTAURANT AND DANCING-HALL

designing it Herr Asplund has endeavoured to divest himself of all tradition and to follow whither his materials and immediate needs might lead. The façade is almost entirely composed of glass, divided horizontally by the narrow thickness of the several floors so that the 2,000 guests that can be accommodated have uninterrupted views over the city and the islands. At night the dancing rotunda is a glimmering lantern of glass walls surrounded by galleries.

The interior decorations are carried out in a daring scheme of colour. The ceiling of the restaurant is bright red, the walls blue, while the pillars and beams are of silver. The schemes of lighting are of the most advanced

types, one special feature at night being the transparent and illuminated railings to the balconies.

Many of the exhibition buildings seem to have been designed on the doctrines laid down by Le Corbusier. They are startling to those who have not been aware of the lengths to which this teaching has inspired the younger school of Swedish architects. Beside the stark entrance to this exhibition the most daring designs of the Gothenburg Exhibition are already old-fashioned. But it is a vigorous manifestation, if a trifle self-conscious, and a real attempt to take modern materials, steel, glass and concrete, and to fashion from them forms distinctive of their character. The influence of this exhibition in a country like Sweden where the crafts are already highly developed and take an important place in everyday life, will be interesting to follow.



INTERIOR OF ONE OF THE EXHIBITION HALLS



## Reviews

### GREENWICH HOSPITAL.

BY T. C. AGUTTER [R.F.].

ROYAL HOSPITAL, GREENWICH. *Sixth volume of the Wren Society. Original drawings by Sir Christopher Wren* [Sc.]. 40. Oxford, 1929. £1 15.

The sixth volume of the Wren Society's publications is a complete and delightful addition to its work. It is devoted to the problem of elucidating by reprints from drawings and documents the relative shares that Wren, Vanburgh and Hawksmoor had in the design of the magnificent group of buildings known as Greenwich Hospital.

The introduction is an able résumé of the subject by Mr. A. T. Bolton, who is to be congratulated on the results of his labours on this fine volume. Hawksmoor's report of 1728 on the founding of the Hospital follows. This was an appeal for funds to continue the work at a time when all was stopped for want of money, and resulted in a grant of £10,000 from Parliament. Then follow over 300 extracts from the minute books in the Record Office from the years 1694 to 1725; from these the initiation and progress of the work can be followed, the financial position, the piecemeal contracts, cost of materials and methods of procedure can be realised. The claim of Sir John Thornhill for painting the Great Hall, resulting in an agreement of £3 per yard for the ceiling and £1 per yard for the sides, is also included.

These and the fifty or more beautiful reproductions of the plans, elevations and sketches collected from six various and scattered sources bring all the interesting facts together for the library table in a handsome book from which the architectural historian can attempt to conjecture and disentangle which parts of the design can be attributed to their respective architects. The salient fact remains that Wren was responsible for the splendid lay-out of the main court and colonnades and that the royal donor's instructions led to this. At the first, Wren wanted to build the Hospital on another site on higher ground so that the scheme should not be complicated by the two existing buildings, viz., the King Charles II Pavilion and that known as the Queen's House. Queen Mary, however, ordered that the first should remain and that another block "answerable to it" should be built on the other side of a great court to be built with "great magnificence and order" and that the Queen's House of Inigo Jones was not to be demolished but that a central approach to it from the river was to be maintained. This occasioned the grand lay-out and colonnades as we see them today, and it is remarkable, in view of the difficulties of obtaining money for the work during the period in question,

that the architects were able to proceed with the work in the grand manner, for monumental façades then appeared to be all-important as compared with the internal accommodation within the buildings.

### THE CITY OF TO-MORROW.

BY H. W. CHESTER [A.].

THE CITY OF TO-MORROW AND ITS PLANNING. *By Le Corbusier. Translated from the 8th French Edition of URBANISME by Frederick Etchells.* 40. London, 1929. [John Rodker.]

Readers of M. Le Corbusier's first book, "Towards a New Architecture," will of course be familiar with his theories on Modern Architecture. This book deals in particular with the modern city; its defects under modern conditions and a remedy for the evils of overcrowding, lack of light and air, traffic chaos and slum property. The book is admirably translated by Frederick Etchells, who has succeeded in retaining the spirit as well as the text of Le Corbusier's inimitable style. The translator is fortunate in his choice of title, for its romantic-sounding "City of To-morrow" is more likely to appeal to the reading public than the prosaic "town-planning" of the French text. But the author appears to regard his vision as the "City of To-day" rather than of to-morrow, which, as he states, never comes.

Le Corbusier commences by tracing the origin of the city, and compares the well-planned cities of Pekin, Babylon and those of the Romans with the mediæval cities, derived from the "nomads camp" and with the main streets, irregular and winding, following the "Pack-donkey's way." From such irregular beginnings most of our capitals have sprung, with the result that they are not efficient to cope with modern conditions.

His remedy is a drastic one. He would be a surgeon and use the knife unsparingly. He would destroy (in stages) and rebuild our modern capitals.

Commercial buildings would be immense "skyscrapers" at long distances from one another and surrounded by large open spaces with trees and vegetation in profusion. The resident population would be housed in relatively low tenement buildings also surrounded by parks. Streets would be arranged on the grid-iron plan, with crossings greatly reduced in number (at intervals of 400 yards), and would be in several tiers to take different classes of traffic. Gas, electricity and water services would be readily accessible in the lowest tier.

The scheme is thoroughly explained by the author and is well illustrated by numerous diagrams and plans. From the strict efficiency point of view there is much to be said for it, but he is perhaps unduly optimistic with regard to the economic aspect of the matter. Many people will scarcely see eye to eye with the author in the aesthetic aspect of matter. But this raises the controversial subject of modernism versus traditionalism.

The book is well produced and should prove of great interest both to the architect and general reader.



## GREATER LONDON REGIONAL PLANNING. BY W. HARDING THOMPSON [F.].

FIRST REPORT OF THE GREATER LONDON REGIONAL PLANNING COMMITTEE (*with Memoranda by Dr. Raymond Unwin*), 40, London, 1929.

An event occurred in November 1927 which was of vital importance to the survival and future prosperity of London as a great metropolis. In that month, the Greater London Regional Committee was constituted under the auspices of the Rt. Hon. Neville Chamberlain, M.P., the then Minister of Health. This Committee consists of representatives of all the Advisory Bodies and Town Planning Authorities at work in the area which falls roughly within a radius of 25 miles from Charing Cross, and covers 1,846 square miles.

The work of preparing a comprehensive plan for this great region then began, under the technical guidance of Dr. Raymond Unwin, who has co-operated with experts engaged on regional schemes within the area—Professor Adshead, Mr. W. R. Davidge and Mr. Longstreth Thompson, in addition to Mr. Frank Hunt, C.V.O., the Valuer to the London County Council. Our President, Sir Banister Fletcher, has acted as Chairman of the General Committee since its inception.

Such a vast and densely populated region offers almost insuperable problems in re-organisation and the last two years have been fully occupied in investigation and research connected with the proper utilisation of land and future control of development. Until the various ways and means of effecting this have been examined, it is obviously impossible to grapple with the unwieldy octopus which during the last 100 years has been devouring the farm lands of six counties and absorbing towns and villages.

The first Report of the Committee has now been published; its excellent concise recommendations give little indication of the immense amount of investigation which has been carried out effectively during the past two years. These recommendations are based on memoranda submitted by Dr. Unwin on four fundamental matters, viz:—

- (1) Open spaces and a green belt or belts round London.
- (2) Ribbon Development and Sporadic Building.
- (3) Additional Town Planning Powers required.
- (4) A Regional Planning Authority for Greater London.

The Committee has also investigated the problem of the decentralisation of industries, but is not yet in a position to publish its conclusions. Much information has, however, been collected as regards:

- (a) the existing industrial conditions in the Region,
- (b) the probable developments in the near future,
- (c) advantages and disadvantages of decentralisation, whether by the system of satellite towns or otherwise,
- (d) means of counteracting any of the disadvantages of decentralisation,
- (e) the possibility of effecting the removal of industries from the central districts.

In this connection there are some illuminating diagrams in the Report to illustrate the movement of population during the last seven years. Proper appreciation of this migration is essential before planning. It may be useful, therefore,

to remind the reader that the estimated population of the Region in 1927 was over 8½ millions, increasing annually (in spite of the decrease of birth-rate) by 66,000. Moreover, the general tendency is for this population to move outwards. Ever since 1911 there has been a persistent emigration from the County of London area which rather suggests that commerce and industry are rapidly displacing the resident population, which, assisted by transport facilities and driven by economic pressure is migrating to the middle and outer rings of the Region.

A study of the present population figures has led Dr. Unwin to believe that we require provision for 279 square miles of open spaces in the Greater London Region, of which approximately 95 square miles would be utilised for Private and Public Playing fields, and in order to reach this minimum standard we must obtain by some means a further 63 square miles of playing fields and 143 square miles of other open spaces. It may be said that these requirements are based on the figure of 7 acres per 1,000 persons for playing fields, plus 10 per cent. of the total area of the Region as open space. The annual increase of population also demands an additional 460 acres of playing fields per year to keep pace with requirements. In Memorandum No. 1 there is a very lucid exposition of the financial difficulties inherent in the wholesale reservation of land for open spaces; Section X illuminates the debatable subject of "prospective building value" which is followed by notes on the practical application of the author's theory, with estimate of the expenditure involved in acquiring the necessary open spaces.

The problem of providing adequate open spaces is really interlocked with several other matters—with communications, industrial centres and density of population. It is all a question of distribution; and as the Report says:—"to secure a better distribution of population and industry throughout the Region is seen to constitute the basic problem of the plan. This underlies the solution of nearly all the other problems."

Dr. Unwin's Memorandum on "Ribbon Development" has been prepared in that convincing manner familiar to those who have read his thesis (published some years ago) on "Nothing gained by overcrowding" in regard to residential development. His argument against Ribbon Development is devoid of sentiment, although the disfigurement of the countryside is acknowledged; but it points out that firstly it is not economical, and secondly it is thoroughly dangerous to life and limb. The new arterial roads cost roughly £60,000 per mile and therefore the cost of a 10-foot width of roadway, sufficient for one track of vehicles is probably about £5 per lineal yard. When houses are established along an arterial road, vehicles which serve the frontagers take up one traffic unit in width and thereby diminish the efficiency of the artery for "through" traffic by so much that it would be infinitely cheaper to construct separate service roads to give access to new developments. Tentacular growth is also wasteful in public services. Again, by allowing building along main traffic routes, it entails innumerable side roads and garage drives, which cut into the stream of fast traffic at frequent intervals and so cause potential



collision points as well as reducing the speed of the highway users. All this appears such elementary common sense that it is incredible that the Ministry of Transport has not yet taken action to prevent sterilisation of the true function of these new arteries.

The remedy lies, so Dr. Unwin suggests, in one or all of the following three methods of control :—

(i) By the purchase of the frontage land on each side of every new artery.

(ii) By imposing restrictions as to the development of the frontages when purchasing the site of the road.

(iii) By regulating the development through Town Planning Schemes by the various Local Authorities concerned.

These methods are discussed in detail, and suggestions for avoiding other bad forms of sporadic development are also put forward.

In regard to the additional planning powers required, the Committee considers that the following are necessary :

(1) Joint Regional planning powers to be increased so that schemes dealing with larger matters of regional concern may be made and provisionally approved, without depriving Local Authorities or groups within the Region of the power singly or jointly to make schemes dealing in greater detail with their area, but conforming generally to the Regional Scheme.

(2) Power to be given for Joint Regional or Town Planning Schemes to include provision for the making of development or redevelopment schemes including, where desirable, schemes for redistribution of ownerships after deduction of a suitable proportion of the area for streets and open spaces.

(3) Town Planning powers to be extended so that schemes may include any land whether built upon or not.

(4) The powers of zoning, by means of Town Planning Schemes, to be extended so that areas may be allocated :—

(i) For building development in accordance with the Scheme.

(ii) For reservation from building development.

This last recommendation if adopted is pregnant with possibilities for sound planning, for at present the powers to keep land open are totally inadequate.

The final section of this valuable Report concerns the formation of a Planning Authority for the whole of the Greater London Region with powers for carrying their "master" plan into effect, but on condition that this Regional Committee should be required to consult the sub-regional Authorities and the Metropolitan Boroughs as well as any Town Planning Authority concerned before coming to a final decision on any proposal.

These safeguards may be wise, although one fears that the procedure of planning may be unduly long, and it would have been interesting to compare the probable results with the more autocratic procedure now in force in the Ruhr district of Germany.

The Report in its general form and arrangement is admirable and of immense interest to architects, town-planners and other technicians : it should appeal also to all intelligent laymen interested in the future growth of our great city. Moreover, the general principles expounded are applicable to the whole science of Regional Development elsewhere. It is very fully illustrated with photographs and diagrams which serve their purpose and

one folding map showing all the existing and proposed open spaces in the region. Two informative appendices are included relating to the "Re-distribution of land in Germany" and to "Special Assessment as applied in Kansas City, U.S.A." The book is published at a price within the means of all.

An effort has thus begun to reduce the chaos of London to something approaching an ordered organic unity. The existing confusion has been brought about largely by our inability to deal with strong vested interests, by the network of competitive railway systems, by the rapid growth of transport facilities and lastly by a lack of vision in the location of the post-war housing schemes.

We may hope that when the "master plan" for the region is eventually completed, and further powers acquired for carrying this plan into execution, there will be no excuse for more blunders on a grand scale. The official scheme for the Charing Cross Reconstruction would surely never have been submitted to Parliament if the authors had visualised its effects on the planning of south London. If the new Town Planning powers enable us to plan and zone the areas already built on it may be possible so to relate our industrial and housing areas that it will no longer be necessary for the workman who lives at Becontree for example, to travel expensively and uncomfortably to Hammersmith to his job or for the mechanic who works at Slough to make a daily journey from his home in London. The "straphanger" may become an extinct species, and by intelligent utilisation of land it should be possible to establish some reasonable relation between home, workshop and playing field.

The next Report will be awaited with interest, for the first one, by its grasp of fundamentals, augurs well for the future. The Committee and its technical advisor are to be congratulated on the first results of their labours.

#### STOCKHOLM TOWN HALL.

BY H. C. HUGHES [A].

THE STOCKHOLM TOWN HALL. *By Ragnar Östberg.*  
Sm. 40. Stockholm, 1929. [P. A. Norstedt & Söner.]

Few buildings in the history of the world have received upon their completion praise so immediate and so wholehearted as this, or praise in Europe so unheralded by anticipation. The agonies of the war, the turmoil of the peace, left little time to listen to rumours of a Renaissance of art shaping itself in the northern mists ; so it, and its queenly building on the Melar Lake, rose new-born and yet full-grown like Venus. Now, there is no one who does not know of this building, but it is good to know it better and to have this book, the gift of its author, as a record of it and the company of artists who worked together on it. But it is more than a description of the building ; it is the history of the slow maturing of an idea. "God did not create hurry" is a Swedish saying that Professor Östberg quotes in his preface as a solemn warning to our hurrying age. Fifty years of deliberation in the Town Council preceded the decision to build, and in the mind of the young architect this became the one dominant idea. As early as 1893 he devised and exhibited a scheme for a municipal building, and it was then that was formed the friendship with Mr. Ohnell which was destined to be of



such importance. Then he travelled—to Chicago first, and later to most European countries—and it was the Town Halls that he studied, and how they expressed the character of their peoples.

It has lately been stated that the City Hall of Stockholm is one of many fine buildings which we owe to public competition. There is a little truth in this; but only a little. "Perhaps no such masterly scheme as it shows could have the remotest chance of being executed in England. For its method of plan and manner of design could not be considered by any public or private promoters of a building enterprise, and certainly not by any assessor under our competition system. It is neither sufficiently commonplace nor enough of a modernist freak to win general approval. And as a proper design to a scale of  $\frac{1}{4}$  it would be practically impossible to develop its real, its emphatic, first-rate qualities."

In 1901 Mr. Ohnell came to Östberg's little studio and told how for years the Committees had sat and discussed; how he was now determined to cut the Gordian knot of the uniting of a Law Court and a Municipal building by making them separate buildings, and asked the architect if he was still interested. Was he not!—and the two of them went at it, hammer and tongs, examining and sifting sites and problems, so that the Council bought then the site where the Hall now stands; and it was determined to build the Law Court there. Then followed competitions—first a general prize competition, in which six architects were selected—then for these six the special competition with a modified programme. One of the assessors was Martin Nyrop, who built the Copenhagen Town Hall. This competition was won by Östberg, and in 1906 it was decided to build the Law Court in accordance with his modified plans. Then, just when the foundations of this building were to be laid, it was suddenly decided that the site ought to be reserved for a City Hall in the future, and the Law Court built on another site. The architect, in bitter disappointment, threw up the job, and it was carried out by the man who had been placed second in the competition, Carl Westman.

Subsequently, Östberg was appointed, though by only a slender majority in the Council, to make plans for a City Hall on the site; but the Council lost interest in the project, and it was shelved again. "I was once more," he says, "to pass through several years of tormenting suspense." In 1911, however, the proposition was renewed, new plans were made, and at the last minute two great donations changed the scale, and it was decided to build; and the councillor who had most persistently advocated the hall was made chairman of the Building Committee, which throughout the time of building supported the architect with exemplary patience, even through such revolutionary changes as making the summit of the great tower in wood and copper instead of granite.

So this building seems a life's work, written in life's blood. Professor Östberg tells how his office was established in an old house on the site; and when that was pulled down, it was moved to a room in the new building. Everything was done on the site—large models prepared for every detail and judged in place—sweeping changes like the substitution of cut brick for

blue marble in the Blue Hall decided—the many artists who co-operated were consulted on the spot.

For every detail of this building is finely wrought: if a prince painted on the walls, his choosing was as painter, not as prince. Furniture, glass in the exquisite candelabra, marbles, as well as painting and sculpture, were all by keen artists, and yet do really take their place most harmoniously in the whole. It is often felt that it is impossible in a modern building to secure this unanimity and so the architect controls all: but this building is a proof that given a great inspiring idea, such harmony can very well be maintained.

It is the lesson of this building that still to-day a great idea full of romance and association can inspire a band of artists to fulfil the dream dreamt by one, given time, support and freedom, and a real personality in the dreamer. Such a building springs very seldom in the great enterprises of to-day. All praise and honour to its author, Ragnar Östberg, and may much more work fall to his lot: still more praise to the City Council who allowed him to carry it through.

#### NOTES ON SOME RECENT FOREIGN PERIODICALS

By GRAHAM B. TUBBS [A].

The career of M. Jacques Doucet, of whom a memoir appears in the *Gazette des Beaux-Arts* for February, might be used as an analogy to the trend of architectural thought throughout the whole world. He was one of the foremost connoisseurs of French eighteenth-century pictures and furniture, and formed the most important collection since Sir Richard Wallace. Eventually he became dissatisfied with his fine Louis XVI house and its contents and put them up for auction, realising over half a million pounds sterling. This was in 1912, from which time M. Doucet devoted himself to forming another collection. At first he encouraged Degas and the Impressionists and later the more advanced of the modern schools. He, like many designers, felt that the work of the past was not entirely satisfying to-day and that this age should be encouraged to "be itself" and not to continue to copy the old motifs. Evidence that such thought is spreading is seen in the special number of the *Revista di Architettura* of Buenos Aires which is given up to modernistic work. The letter-press of this number is largely taken up by a translation of the discussion at the Architectural Association, London, which was initiated by Mr. R. A. Duncan's paper on "Modern Tendencies in Architecture." The illustrations are taken from recent work carried out, mostly in Buenos Aires, by Señor Virasoro, some of which is interesting and more restrained than is usual in South American work. In the February number of *Innen Dekoration*, the German magazine, Herr Fahrenkamp's Park Hotel is illustrated by a large number of photographs. The exterior is simple to the point of baldness and the interiors are almost equally severe, but are relieved by mural paintings and the effect in some cases is good. The same magazine has a delightful Viennese "wintergarten" which seems to be a kind of flower-shop, by Professor Litchblau. The Swedish magazine *Arkitekten Maanedshäfte* for November has illustrations of work by Mr. Asplund, including his circular library at Stockholm, and a new theatre, Skandiateatern, in which



the seats are on one floor, with a series of boxes all round, forming a balcony. This month the German town planning magazine *Städtebau* has been amalgamated with *Wasmuths Monatshefte für Baukunst*, and in the January number of the combined magazine there are reproduced photographs of an extremely interesting motor showroom in Paris by MM. Leprade and Bazin. The façade consists of a vast expanse of glass, exposing to view a large hall, surrounded on the three inner sides by five galleries upon which the cars are displayed. The February number gives examples of the smallest type of house from various countries and prints an article on le Corbusier. This issue also has photographs of a series of houses at Hollywood by Frank Lloyd Wright. They are constructed on the system that this architect has evolved which makes use of square reinforced concrete blocks; the general effect is very unusual and rather reminiscent of Maya work in Central America. Frank Lloyd Wright is also represented in the American *Architectural Record* for January by a number of coloured drawings for a glass skyscraper that he has designed for a site in the Bowery, New York. The apartments in this astonishing building are all to have living rooms running through two storeys and each is to have a completely secluded balcony. Its construction consists of concrete towers in the centre, from which the floors are suspended, the walls being almost entirely of glass. In the same magazine Louis Mumford writes on "Mass Production and the Modern House." He points out that it is inevitable that attempts will be made to produce houses in the same way that motor cars are made, i.e. in factories, but he shows that the analogy does not hold and that no really drastic reduction in cost is possible unless a large number of houses are erected at the same time and in the same place. This number has some interesting data on Prison Architecture and, as usual, with these reference numbers, the problem is most carefully analysed. The extraordinary precautions taken to prevent mutinies and prison-breaking are described with other details and the conclusion comes to is that the skyscraper prison is probably the most satisfactory type for America. The shortcomings of the American penal system in the past is recognised and the author points out that England, with shorter sentences and better prisons, has less crime. In the February number of this paper there is much information on the subject of remodelling existing buildings and there are photographs of a number of new American shop-fronts in which the influence of modern Continental work is very apparent. The January number of the *American Architect* has eight pages of details of architectural leadwork and the February number gives a most interesting series of photographs of decorative glass-work including treatment of moulded, cut, and a combination of cut and leaded, glass; photographs are given of the original treatment of the ballroom of the St. George's Hotel, Brooklyn, which is completely decorated by light from glass-covered troughs in the ceiling and vertical flutes forming a design on the walls. In the New York *Architecture* for January most of the space is given up to the work of Messrs. Holabird and Root, of Chicago, and the really extraordinarily fine commercial buildings erected by the firm are brought together. This is a most interesting firm, as although it is a new partnership, the principals are both sons of celebrated architects,

Mr. Holabird's father being a partner of Holabird and Roche who designed the first metal-framed building (the Tacoma Building in Chicago) in the 'eighties, while Mr. Root is a son of the late D. H. Burnham's partner. The present office has a membership of 200 and includes departments for mechanical and structural engineering and interior decoration and sculptural work. The office procedure is described, showing how the job goes through the hands of the experts and the principals before the final scheme is settled. Certainly the results are satisfactory and the firm is well on the way to getting what the author of the article calls "the elusive æsthetic answer to American steel building construction." The principal buildings illustrated are the Chicago *Daily News* building, which is largely built over a railway track and includes on the site a large public "concourse" with fountains and hand-stand; the Palmolive Building, the Rand Tower, Minneapolis, and many interesting pencil studies for office buildings, as well as some delightfully freshly treated interiors. In the February number Gerald K. Geerlings writes on "Suggestions for External Plasterwork," illustrated by photographs of East Anglian buildings mostly from Ipswich, Lavenham and Hadleigh, while five houses by Dwight Baum of good, sound work in the Georgian manner, are given. The January number of the *Architectural Forum* is largely devoted to Airport design. Harvey Corbett puts forward an original scheme for an aerodrome in the form of a cone, having a 2 per cent. slope up to the centre; all the hangars and administration buildings are put underground and trap doors are provided at intervals through which the machines emerge. The drawings submitted in the Lehigh Airports Competition are also given including the winning design submitted by Messrs. Zimmerman and Harrison. This plan shows a quadrant-shaped aerodrome on a rectangular site, with the administrative buildings and hangars grouped in one corner. The passengers reach the machines by way of an underground tunnel from the station-building to a star-shaped tower, from which telescopic metal tubes extend to the aeroplanes so that passengers can reach them entirely under cover. In Part 2 the construction of aeroplane hangars is considered, including an ingenious hexagonal building to take six 'planes, which is claimed to be very economical, and photographs of which are reproduced. In the January number of *Pencil Points* the old rule for "rise and tread" of staircases are submitted to ruthless analysis and a number of actual examples have been measured and reported upon. In many cases the most satisfactory ones are found not to conform to the rules. A form is reproduced which architects are asked to fill in giving measurements of examples known to them, so that a fair generalisation can be arrived at. In the Canadian paper *Construction* Messrs. Mathers and Holdenbury's University Club, Toronto, which was the result of a competition among its architect members, is illustrated. The winning design is a handsome building in the Adam manner. In the *Journal of the Royal Architectural Institute of Canada* for January Messrs. Nobbs and Hyde's Pulp and Paper Research Institute at Montreal is given and there is an article on hospital planning and equipment by Evan Parry and reproductions are given of paintings exhibited at the 51st exhibition of the Royal Canadian Academy.



## The Library

### THE OXFORD DICTIONARY.

It is interesting to record that, the last section of the dictionary (Wise-Wyzen) having been published, the last volume of this monumental work has now been bound by the Institute Library, and the completed work is now on the shelves available for members. The successive sections of the work, officially known as "A new English dictionary on historical principles," and originally edited by Dr. James Murray, have reached the Library as published, the earlier sections having been presented by the late Mr. Benjamin Ingelow [F].

This work, a miracle of care, thoroughness and accuracy, both literary and typographical, is of great use to research workers, in that, although not a technical dictionary, its historical treatment enables the reader to trace early uses, early spellings, and sometimes earlier meanings. It is interesting to see that the name of the Institute is mentioned as one of the earliest uses of that word to denote a society devoted to a literary or other interest, and references to Institute papers also occur. Many of the references are to early works preserved in the R.I.B.A. Library, such as Moxon's *Mechanick Exercises*, and Leoni's edition of Alberti's *Architecture*, while Gwilt's *Encyclopædia* has been taken as a standard work for more modern terms. The dictionary can thus be studied in conjunction with Prof. R. Willis's *Architectural Nomenclature* (1844) and the more recent articles, *Some Ancient Building Terms* by Miss Beatrice Saxon Snell (R.I.B.A. JOURNAL, 18 December 1926, 22 December 1928).

Since the commencement of publication of the dictionary in 1884, many words have been added to the language and further researches have been made into ancient sources, and it is intimated that a supplement will be published. This may probably contain further references to technical terms, and thus add to our knowledge of the minutiae of our profession. H. V. M. R.

### NOTES BY MEMBERS OF THE LITERATURE COMMITTEE ON RECENT PURCHASES

[These Notes are published without prejudice to a further and more detailed criticism.]

GLAS IM BAU. By ARTHUR KORN. 40. Berlin. [1929]. [Pollak.] £1 12s.

It has been commonly said that the architecture of the Middle Ages was a constant progression from darkness to light, from massive masonry to a mere framework of iron and stone. It might be said with far greater truth of a large amount of recent architecture. "Light, light, more light," till there is too much of it, and we must modify our transports. This book has an unusually good collection of pictures of buildings in which translucent glass is the most important feature; it has a few beautiful photographs of glass vessels; it almost ignores the use of glass for reflection purposes, which is nevertheless a most fruitful course for experiment, as may be seen in Mr. Forbes' house in Cambridge. Condensation and glare are the two great enemies; for some of the Dutch buildings illustrated glass for light is reduced to the texture of bricks. This is the sort of book that should be produced in England by the Plate Glass Association, for it shows the great possibilities of the use of that material.

H. C. H.

ALT SLAVISCHE KUNST. By JOSEF STRZYGOWSKI. 40. Augsburg, 1929 [Benno Filser.] £3.

Any new book of Strzygowski is an event in the history of architecture. The centre of his stage is always some land little enough known to most of the world; but in the wings we are at home. Here is traced the influence of the old Slav art on building and carving shown in small-domed churches of wood and stone, and decorative forms in stone, paint and embroidery. The illustrations range over many countries; they include familiar things like the churches at Grunford or Barton-on-Humber, and the gorgeous decorations of Viking art in the Oslo Museum. Archaeologists may quarrel fiercely on the accuracy of some of the deductions; the man of no architectural knowledge will enjoy the painted wooden churches and the embroideries of which this book has lavish illustrations.

H. C. H.

LE MÉTAL, ed. by Jean Prouvé; LE VERRE, ed. by L. Barillet (L'Art international d'aujourd'hui); LA LUMINAIRE ed. by G. Tanneau. Portfolios. 40. Paris [1929] [Editions Charles Moreau.] 18s. each.

These three portfolios of plates give a very adequate idea of the trend of modern design. They belong to a series of publications on international art of to-day, but characteristically they deal almost entirely with French work.

Le Métal illustrates entrance doors, balustrades, lift enclosures, shop fronts, electric light fittings and door furniture, and shows very clearly the trend of design towards the use of contrasted planes and surfaces. The character of nearly all the designs is strictly geometrical and the flowing lines and rich decoration which was so prominent a feature five years ago has almost disappeared.

Le Verre shows similar tendencies but less successfully, for glass does not lend itself to reproduction in black and white. A good deal of the window treatments shown is restless in pattern, but there are many which make very effective use of different varieties of obscured glass. The volume is confined to window glazing, and does not include table or decorative glass in the round.

La Luminaire is very rich in suggestion. Here, too, the advance of a strictly geometrical basis of design is evident. This, however, does not monopolise the field, and there are very delicate and beautiful examples of cast glass fittings by Lalique and Sabino which are richly ornamented. The interpenetration of planes of metal and glass have provided many designers with inspiration, but it is obvious that this is a mode which will rapidly exhaust itself on account of its liability to facile imitation. We particularly note the design of the glass and metal work in a fitting which consists chiefly of a plain white sphere of glass. Every architect must have been baffled by the difficulties of securing a satisfactory fitting of this kind, and our manufacturers might well adopt something of the kind.

J. M. E.

SKYSCRAPERS AND THE MEN WHO BUILD THEM.

By W. A. STARRETT. 80. New York and Lond. 1928. [Scribners.] 12s. 6d.

This is an American book, written for architects by a civil engineer of wide experience in his subject.

Our own interest in skyscrapers is apt to be confined to their æsthetic and civic aspects; but readers of Colonel Starrett's book will obtain a vivid glimpse of the process by which the building of a skyscraper is initiated and carried to completion. They will find, too, much detailed and interesting information about methods and materials and about the whole organisation of the work; and Colonel Starrett's survey is wide enough in its range to include a historical account of how skyscraping began in America and some conjectures as to its development in the immediate future.

A. L. N. R.



# Correspondence

## EASEMENTS OF LIGHT.

39 Maddox Street,  
London, W.1.

31 May, 1930.

To the Editor, JOURNAL R.I.B.A.

SIR,—I have observed in the JOURNAL of 24th instant, a letter by Mr. Percy J. Waldram, commenting upon the report of a paper I read at a recent meeting of the Sheffield and South Yorkshire Society, held at the Sheffield University.

Mr. Waldram calls attention to an allusion in the report to the case of *Sturges v. Bridgman*, which came before the Court of Appeal. First, he observed that the report did not give the citation and then expressed the view that, as it is a pre-Colls case, the judgment "would therefore be subject to correction by the decision in the Colls case." He finally directed attention to the judgment in the case of *Horton v. Beattie*, the decision in which he regarded as "the precise opposite." His letter concludes with the comment "any dictum in a judgment prior to the House of Lords decision of Colls does not necessarily carry any weight to-day. This possibly explains the absence of any mention of the case cited in Combe's *Law of Light*."

It is to be regretted that Mr. Waldram wrote this letter, without first observing my own comments on the cases of *Sturges v. Bridgman* and *Horton's Estate, Ltd. v. James Beattie, Ltd.*, which appear on pp. 141 and 142 of my recent book, entitled—"Easements of Light: Modern Methods of computing Compensation." Reports in professional journals of lectures have necessarily to be condensed to the uttermost, and it is not fair to comment upon part of the opinions expressed, when the opinions are accessible in print, in a fuller and more comprehensive form. If he had looked at the pages I have mentioned, he would have found that I do give the citation of the case of *Sturges v. Bridgman* and that the report appears in 2 Ch. D. 852, at page 865. He would also have read that this was only a casual expression of opinion by Lord Thesiger, and that the case related to an entirely different matter. Owing to this circumstance, I suggested that the judgment should be read in conjunction with that given in *Polsue and Alfieri, Ltd. v. Rushmer*, reported in 1907 Appeal Cases, at page 12. Mr. Waldram is not correct in stating that the case of *Sturges v. Bridgman* is not mentioned in Combe's *Law of Light*. It is mentioned in no less than three places in my own copy, which is dated 1911. I refer to pages 3, 153 and 158.

On page 142 of my book, I quoted a portion of the judgment in the case of *Horton v. Beattie*, which was dealt with in a Court of First instance only, and concluded by making the deduction that the action of Mr. Justice Russell (as he then was), in granting an Injunction for the purpose of protecting the easements of light of property in Darlington Street, Wolverhampton, despite the lack of amenities enjoyed, is not inconsistent with the view that the special value of property in the more

favoured parts of a town is due in part to and dependent upon a better standard of daylight illumination.

No one is likely to disagree with Lord Russell's view that "the human eye requires as much light for comfortable reading or sewing in Darlington Street, Wolverhampton, as in Mayfair," but we have yet to learn whether the Court of Appeal will uphold the view that the standard of lighting required to survive in order to eliminate the existence of a nuisance is of necessity an absolute standard. Although the minimum of adequacy for vision may be the same in Wolverhampton as in Mayfair, it has yet to be proved that the loss of a higher standard of illumination than the minimum of adequacy would not constitute a nuisance in the best and most valuable parts of (say) Mayfair, which are in the enjoyment of most amenities, even if it should be found that the loss of exactly the same standard might not necessarily constitute a nuisance in the least favoured parts of Wolverhampton, where work-people are no doubt accustomed to submit to a greater amount of inconvenience. Higher prices are only paid for land on account of the various amenities and other advantages enjoyed. Surely it is not unreasonable to assume that one of the advantages for which additional money is paid is a better standard of daylight illumination. If that be so, the loss of that standard might be held to constitute an actionable nuisance, especially if it could be shown that the loss of that higher standard would cause appreciable loss of rental or capital value. Whatever view the Court of Appeal and House of Lords may eventually take regarding this very interesting point, there can at least be no doubt that a given infringement of direct daylight could not be compensated by payment of the same monetary amount, in respect of property in Belgrave Square and property in the least favoured parts of Bermondsey. Whether the measure of nuisance be the same or not, the rate of compensation for a given infringement is certainly not a flat rate in all districts, but varies, on the other hand, with the rental or capital values of the buildings affected. In fact, as we all know, it has sometimes to be calculated on the basis of damage done to the goodwill of the business conducted on the premises in question.

I should like to conclude by quoting a passage from the judgment of Lord Loreburn, L.C., in a post-Colls case, *Jolly v. Kine*, 1907, A.C. 1, at p. 2. "The right of the owner or occupier of a dominant tenement to light is based upon the principle stated by Lord Hardwick in 1752 in *Fishmongers' Co. v. East India Co.*, that he is not to be molested by what would be equivalent to a nuisance. He does not obtain by his easement a right to all the light he enjoyed. He obtains a right to so much of it as will suffice for the ordinary purposes of inhabitancy or business according to the locality or surroundings." It is difficult to imagine that Lord Loreburn would have added the words—"according to the locality or surroundings," unless his Lordship had considered that the extent to which an infringement of light could constitute a nuisance would vary according to the locality or surroundings. The case of *Jolly v. Kine* was heard in the Court of Appeal, whereas the judgment in *Horton v. Beattie* was given, as already stated, in a Court of First instance.—Yours faithfully, JOHN SWARRICK [P.]



## PAINTING ON PLASTER AND CEMENT

11 April 1930.

*To the Editor, JOURNAL R.I.B.A.—*

DEAR SIR,—It is a matter of common experience that when linseed oil paint is applied to cement rendered surfaces which have not been given sufficient time to dry out, failure of the paint film often takes place. The degree of failure may vary from a few unsightly patches to a general softening and tackiness of the paint, sometimes accompanied by the formation of wrinkles and blisters containing a yellow liquid. Such a type of failure is also liable to occur on plastered surfaces.

It is commonly supposed that these failures are directly due to the presence of lime which on account of its caustic nature may destroy the oil film and also attack many classes of pigments causing bleaching of the paint. On this account the pigments which resist attack have been termed "lime fast."

This type of failure has been the subject of recent investigation at the Building Research Station and the results obtained have thrown rather a new light on the problem. After a series of tests it has been demonstrated that such failures are not caused by lime alone, and that it is possible to paint on a freshly prepared lime plaster surface without any softening or bleaching of the paint film taking place, even when the pigment used is not "lime fast."

If, however, soluble salts of soda or potash are also present, the paint film is quickly attacked unless the material is quite dry. The reason for the destruction of the paint is that in the presence of moisture the alkali salts are causticised by the lime, forming caustic soda and potash which decompose the oil film. The tackiness which is experienced in such cases is due to the soluble soaps which are formed as a result of the reaction.

Portland cement nearly always contains both free lime and soluble salts of soda and potash. Hence painting upon Portland cement rendering before it is thoroughly dry and well matured (that is to say before the free lime contained in it has been carbonated by a long period of exposure to the atmosphere) usually results in failure. Some classes of lime are liable to contain alkali salts, whilst clay, introduced in dirty sand, is also a source of these salts.

Besides elucidating the cause of a number of failures experienced by painters, it will probably prove possible to utilise the reaction to demonstrate the presence in a given material of amounts of calcium hydroxide or soluble alkalis which are likely to cause trouble. It is hoped to publish shortly a full account of the experiments which have led to these conclusions.—Yours truly,

R. E. STRADLING [*Hon. A.*],  
*Director of Building Research,*

## 'THE ENGLISH COUNTRYSIDE.

The following letter from Sir Hilton Young was published in *The Times* of 3 June :—

*To the Editor of "The Times"*

SIR,—The recently announced dropping of the Rural Amenities Bill was not in fact due to my being called away. It was because the state of business made it hopeless that it should become law, and so it was unfair to ask members

and officials to waste their time on it in committee. On the occasion I have received a courteous and encouraging letter from the Minister of Health, containing the following passage, that will be welcome to all those who gave so freely of their time and knowledge to make the first Bill a success.

Its introduction has been of real value. The second reading debate not only showed how great is the support among all parties for the principles of such a measure, but also enabled many of the problems inherent in legislation of this nature to be ventilated. You ask me about the intentions of the Government. The Government have undertaken to introduce, although not, of course, in this Session, a Town-Planning Bill. Obviously I cannot anticipate the Bill, but I can assure you that it will be a comprehensive measure, including express powers for the preservation of rural amenities, and in its preparation the experience we have gained from the introduction of your Bill will certainly be of great assistance. . . . By devoting so much time and trouble to the rural amenity problem you have made a substantial contribution to its solution.

I quote Mr. Greenwood's concluding words in order that I may pass the palm on to those to whom it is due—the experts, the members, the Press, and the public, who took such a helpful interest in the Bill, and thereby so notably advanced the cause that we all have at heart.—Yours faithfully,

Baghdad, Iraq.

E. HILTON YOUNG.

## KING'S BIRTHDAY HONOURS.

The following names appeared in the official list of honours conferred by the King on his sixty-fifth birthday.

## KNIGHT.

Professor Leonard Erskine Hill, M.B., M.R.C.S., L.R.C.P., F.R.S., Hon. A.R.I.B.A., Director, Department of Applied Physiology, National Institute of Medical Research.

## K.C.I.E.

Sir Herbert Baker, lately Architect, New Delhi and Architect of India House, London.

## C.I.E.

Robert Tor Russell, Esq., D.S.O., lately Architect, New Delhi.

## C.V.O.

Evelyn Campbell Shaw, Esq., M.V.O., Hon. A.R.I.B.A.

## O.B.E.

Charles Albert Battie, Esq., L.R.I.B.A., Assistant Architect, Metropolitan Police Office.

## WINDMILLS OF GREAT BRITAIN.

The S.P.A.B. intends to make a record with photographs of all the windmills still standing in Great Britain and publish it in book form. The Society also wishes to raise a fund so that a few carefully selected mills in different parts of the country may be bought, repaired, and maintained as interesting monuments. The record of windmills in Warwickshire and Cambridgeshire has already been completed, and several other counties are almost finished. Any information or photographs will help the Society considerably in its work.

Subscriptions and information should be sent to the Windmill Secretary, The Society for the Protection of Ancient Buildings, 20, Buckingham Street, London, W.C.2.



## Allied Societies

*(The attention of Members of the Allied Societies is particularly called to this page)*

### ULSTER SOCIETY OF ARCHITECTS.

The annual general meeting of the Ulster Society of Architects was held in the Society's Rooms, 7 College Square North, on Monday, 12 May 1930 at 8 p.m., when there was a large attendance of members present, Mr. E. R. Kennedy (President) being in the chair. The Honorary Secretary read the annual report which contained full details of the work of the Council for the past year. The report was unanimously adopted.

The Honorary Treasurer then read the statement of accounts for the year 1929, which show the funds of the society to be in a sound position. The statement was also unanimously adopted.

The following members were elected by ballot as Council for the year 1930-1931: J. A. Davidson [A.], President; R. H. Gibson [F.], Vice-President; R. S. Wilshe [A.], Hon. Treasurer; J. MacGeagh [A.], Hon. Secretary. *Members of Council*—T. R. Eagar, E. R. Kennedy [F.], G. O'Neill, J. Seeds [F.], K. Edwards [F.]. *Associate Members*—B. Cowser [A.], C. T. McLynn. *Hon. Auditors*—T. Callender, J. Scott.

### YORK AND EAST YORKSHIRE ARCHITECTURAL SOCIETY.

The annual general meeting of the York and East Yorkshire Architectural Society was held at the Adelphi Hotel, York, on 24 April 1930.

The President was in the chair. The Annual Report and Statement of Accounts were presented and approved.

The President (Mr. Dudley Harbron, F.R.I.B.A.), in a review of the activity of the Society during the past session, said that the membership of the Society had been maintained. There were still some architects in their area who should join the Society, and he urged that the members should get in touch with those of their acquaintance and persuade them to join. It was encouraging to find that most of the students in the area were members, and that they took an active interest in its proceedings, as witnessed by the presence of several of them at this meeting. If the younger men continued to support them, they as a society had nothing to fear.

The competition for prizes awarded to the students was the field of friendly rivalry, and the standard of the work submitted was pleasingly high.

They had had the Conference in their area, and thanks to the weather, the support of the civic authorities, and the architectural interest of the district it had been a success. They themselves had enjoyed the company of their appreciative visitors.

In York the Society had been consulted by the Corporation with reference to the proposed restrictions on building operations in the built-up historic area, and the Council had approved the suggestion of the committee set up by the Society to report on the matter. In Hull the Education Authorities had formed an advisory committee upon which the Society was strongly represented, and their deliberations had improved the educational facilities, and in course of time these improvements would bear fruit.

They were endeavouring to secure some of the design of public works in the area for the private practitioner, the encroachment upon whose former activities by public bodies was most noticeable. So far, save in the case of the new street in Hull, they had not met with the success desired. They were anxious to see the Registration Bill upon the Statute Book, and the Society was in touch with the Parliamentary representatives throughout the Riding.

Something more might be done to stimulate the interest of the membership and the public by lectures, and he wished that

in the next session they would make the attempt by presenting one of those lectures of which they had had the offer.

He thanked the members for their renewed confidence, and hoped that the Society would continue to increase its usefulness to the profession.

The election of officers and Council for Session 1930-31 resulted as follows:—

*President*: Mr. G. D. Harbron [F.]. *Vice-Presidents*: Mr. K. Ward [L.], Mr. H. Andrew [F.], Mr. F. J. Horth [F.]. *Hon. Secretary*: Mr. R. Jackson [A.]. *Hon. Treasurer*: Mr. E. A. Pollard [L.]. *Council*: Mr. C. D. Alderidge [A.], Mr. W. E. Biscomb, Mr. C. H. E. Bridgen [F.], Mr. C. Leckenby [A.], Mr. C. W. C. Needham [A.], Mr. J. E. Reid, Mr. T. Snowden [F.], Mr. A. N. Thorpe, Mr. A. Hick.

## Obituary

### JOHN HENRY WOODHOUSE [F.].

When John Henry Woodhouse died on December 21st 1929, at the age of 82, Manchester lost a good architect and a man of winsome personality, who loved his profession and all his fellow-workers.

At a very early age he showed artistic promise, and was accordingly sent to the Manchester School of Art, where he quickly made his mark. It is worthy of note that when Mr. Philip Nunn, a Manchester architect, saw the boy's beautiful handwriting, he offered to take him into his office as a pupil without the usual fee. And before he had been long with him, while still a pupil, Mr. Nunn actually made him a present of £100, in recognition of his beautiful draughtsmanship and excellent work.

He began his independent career in King Street, Manchester. In partnership with Mr. S. Smith and Mr. George Willoughby, and later with Messrs. Corbett and Dean, he designed many important buildings in the North and Midlands of England, including the Manchester Fire Station, Bury Free Library and Art Gallery, the Y.M.C.A. Buildings in Peter Street, Manchester, the School Board Offices of Salford, a very great number of grammar schools, council schools and technical schools in various parts of the country, a number of private houses, a beautiful rood-screen in St. James's Church, Brighouse, the Church Hall, Brighouse, and several war memorials.

For some years he was Consultant Architect to the Diocesan Board of Finance, and made a great number of plans for modernising and improving out-of-date Church of England schools.

From 1905 to 1907 he was President of the Manchester Society of Architects.

To make a list of the buildings designed by J. H. Woodhouse is not, however, sufficient to give a just idea of his rare quality. He had a joy in his work which enriched the whole of his long life, and which remained with him to the very end. "Work is the blessing of the Curse" was one of his favourite sayings. Certainly it was a delight to him. And because he had an inborn love of



his profession and also of his fellow-creatures, he rejoiced in holding out a helping hand to the young and untried members of the profession. More than one prosperous architect remembers his ready kindness with affectionate gratitude. "He always showed a sympathetic interest in all of us, and therefore held a special place in our affections. His cheery presence will be sadly missed at our meetings," writes a Manchester architect.

One word more. It is not fitting that even a brief notice of J. H. Woodhouse's life should omit all mention of him as a good and zealous Churchman. For 72 years he was a member of the choir of St. Andrew's Church, Manchester, and his place was rarely empty. His was a wonderful record of service and devotion to duty.

The good architect built his own life on a sure foundation.

E. B.

#### JOSIAH GUNTON [F.].

Josiah Gunton was born at Manea in the Isle of Ely in 1861. He came to London at the age of 15 and was articled to the firm of Gordon and Lowther in Finsbury Circus. Ten years later he became a partner and when Mr. Lowther died, the firm became known as Gordon and Gunton, under which title it carried on until shortly before Mr. Gordon's death in 1916.

In 1916 Mr. Gunton took into partnership his son, William Henry Gunton, and the firm became known as Gunton and Gunton.

Mr. Gunton became a Fellow of the Royal Institute of British Architects in 1899.

During his long business career in the City he was responsible for many important buildings both of a civic and religious character. The latter were almost entirely on behalf of the Wesleyan Methodist Church. He was one of the first architects doing Church work to devise the type of building now so much in evidence, generally known as Central Halls, and exercised a very considerable influence in the development of Nonconformist Church buildings.

Among the most notable examples of this kind of work may be mentioned the Central Hall at East Ham, built more than 25 years ago. Other examples are to be found at Chatham, Bromley, Hackney and better known to the general public, Kingsway Hall.

He was responsible for over 100 Wesleyan churches and schools, the most notable of these probably being at Sutton, Cambridge and Penzance.

On the civic side, his long connection with the City brought him a large share of important work, which can be divided into pre-war and post-war. The former which was the longer period was mostly in conjunction with the late Henry Gordon and other partners.

Amongst a large number of city banks and offices the most notable was probably the development around London Wall and Finsbury Circus, which is now known as London Wall Buildings; and the further development on the east side of Finsbury Circus which is distinguished only as No. 16 Finsbury Circus. This building covers the transitional period, as it was started in 1913 and completed in 1920.

Subsequent to the War in conjunction with his later partners he was responsible for a further number of bank and office buildings, the most prominent probably being Aldwych House and the development of most of the Old Post Office site in the City.

#### JOSEPH OSWALD [F.].

Mr. Joseph Oswald, of 97 Osborne Road, Newcastle, died on 15 January in his 79th year. He was born on 10 March 1851 and served his time with his father, Septimus Oswald, being admitted into partnership in 1876.

Mr. Oswald enjoyed a large general practice in and about the North of England and held a deserved reputation in his profession.

When Newcastle Races were removed from the Town Moor to High Gosforth Park in 1881, under the auspices of a limited company, with the late Mr. Charles Perkins at its head, Mr. Oswald was employed to lay out the various enclosures and to design the stands, etc., being also commissioned in a like capacity by the late Mr. C. W. C. Henderson, when the Hexham Steeplechases were resuscitated about 1890. Since then, the firm have been associated with similar works at nearly all the racecourses in Scotland and the North of England.

Mr. Oswald designed the mansion built by Mr. Charles Perkins at Gallowhill in the year 1888, and was employed on several other works of a similar nature in the country. He designed the offices of the Newcastle Breweries, Ltd. (a perspective of this building was exhibited at the Royal Academy, 1902), in the Haymarket, and remodelled or rebuilt a very large number (well over a hundred) of inns throughout Northumberland, Durham and Yorkshire, as well as chapels at Morpeth, Heaton and Gosforth, etc. Along with his son, he was responsible for the rehabilitation of the Central Exchange Buildings after the destructive fire in 1901.

Mr. Oswald was elected President of the Northern Architectural Association in 1893 and again in 1894 and, in the same years, was a member of the Council of the Royal Institute of British Architects.

#### W. J. MORLEY [F.].

The death occurred on 16 March, after a short illness, at his residence, 14 Park Drive, Heaton, Bradford, of Mr. William James Morley, a well-known architect, of the firm of W. J. Morley and Son, Swan Arcade, Bradford. He was 83 years old. Mr. Morley had planned several large buildings, including the mills at Paisley, owned by Messrs. J. and P. Coats, the Central Hall, Manchester, the Albert Hall, Manchester, and the Eastbrook Hall, Bradford. He had designed a large number of Nonconformist churches all over England and Wales.

### XIIth INTERNATIONAL CONGRESS OF ARCHITECTS.

BUDAPEST, SEPTEMBER 8th TO 14th 1930.

At the last meeting of the Permanent International Committee of Architects, held in Paris on the 25th May 1929, it was decided to accept the invitation of the Municipal Council of the City of Budapest and the Hungarian Section C.P.I.A. to hold the next international congress in that city.

The arrangements for the Congress are now well advanced, and an excellent programme of papers for discussion and visits to buildings and places of interest has been drawn up by the Organising Committee, of which M. Robert Kertész, Architect and Secretary of State to the Hungarian Government, is the President.

The opening session of the Congress will take place on Monday, September 8th, and the proceedings will last until Sunday, September 14th. The agenda will include papers and discussions on the following subjects:—

- (1) Architectural Education with special reference to organisation and modern practice.
- (2) Registration and rules of professional practice.
- (3) Artistic Copyright as applied to architecture.
- (4) The rôle of the Architect in modern commercial buildings.
- (5) A comparison of the acoustic properties of large halls.

The debates will be conducted in one of the four languages officially recognised—English, French, German or Italian, and any points of interest will be translated, on the request of any member present, by the official interpreter.



During the period of the Congress there will also be an international exhibition of modern architecture in the Art Gallery of Budapest, where a selection from the work of architects of the twenty-eight countries represented on the Permanent Committee will be shown by plans, drawings, models and photographs, among which will be a collection of photographs of modern British work which is being arranged by the Art Committee of the R.I.B.A.

For the convenience of those who wish to attend the Congress the following particulars with regard to travelling and hotel accommodation has been prepared by Messrs. Thos. Cook and Son, Ltd.

OUTWARD JOURNEY.			
Friday, Sept. 5th	Depart Victoria	.. ..	2.0 p.m.
(via Folkestone, Boulogne, Bâle)			
Sunday, Sept. 7th	arrive Vienna	.. ..	6.50 a.m.
	depart Vienna	.. ..	7.20 a.m.
	arrive Budapest	.. ..	1.10 p.m.
RETURN JOURNEY.			
Monday, Sept. 15th	depart Budapest	.. ..	4.30 p.m.
	arrive Vienna	.. ..	9.58 p.m.
	depart Vienna	.. ..	11.0 p.m.
Wednesday, Sept. 17th	arrive London (Victoria)	.. ..	1.30 p.m.

Inclusive fare, £24 15s. each passenger (for a party of not less than twenty-five persons).

This fare includes second class return rail and first saloon on steamer, reserved seats, and all meals and gratuities to restaurant car attendants on outward and return train journeys. Accommodation at the Hotel Saint Gellert, Budapest, consisting of café complet, table d'hôte lunch and dinner, bedroom and tips to hotel staff, etc., commencing with luncheon on September 7th and terminating with luncheon on September 15th and also conveyance of members and their baggage from the station to hotel and vice versa on arrival and departure.

It should be noted that the inclusive rate given above only applies to a party of not less than 25 travelling (on the outward journey) together. The rate given is for 2nd class on railways, but any member who wishes to do so can travel first class or by sleeping car by paying a supplement.

The supplement for 1st class return is £6 19s. 6d.

For sleeping car berths (Boulogne-Bâle),

1st class only, £9 2s.

Sleeping car berths, first class (Vienna-Bâle) .. £8 19s.

Sleeping car berths, second class (Vienna-Bâle) .. £1 13s.

As accommodation on trains and, more especially in the hotels at Budapest is limited, any members who intend to join the party are requested to send their names and application for tickets and hotel accommodation as soon as possible to Lt.-Col. H. P. Cart de Lafontaine, O.B.E., the Hon. Secretary, British Section C.P.I.A., 9 Conduit Street, London, W.1, in order to avoid possible disappointment.

### THAMES BRIDGES CONFERENCE.

The following resolution was passed at the last meeting of the Thames Bridges Conference, held on 20 May 1930:—

The Thames Bridges Conference places on record its satisfaction that the Private Bill Committee of the House of Commons, by rejecting the official Charing Cross Bridge scheme, has saved an important part of central London from permanent injury by radically defective planning.

The Conference at the same time reiterates its conviction that a road bridge at Charing Cross is urgently required, and that immediate steps should be taken by H.M. Government:

(i) To inquire into the railway position in regard to the development of London, including the relationship between the tubes and the suburban railways.

(ii) To secure by competition (open to architects, engineers,

and town planners) a plan, in accordance with the data obtained, for the future development of Central London (on both sides of the river), including Charing Cross Bridge and its approaches.

The conference is further of opinion that in view of the evidence given before the committee on the subject of Waterloo Bridge the underpinning and reinstatement of that bridge should now be proceeded with.

### INCOME TAX ALLOWANCES.

Arising out of an inquiry from a member with regard to relief in respect of expenditure for entertainment of clients, recently published in *THE JOURNAL*, the following information is reprinted by permission from the *Architects' Journal*—

Although entertaining expenses appear to be a troublesome item when computing profits for the purposes of income tax, they should be easily dealt with if only proper records were kept of them and put through the books in the same manner as any other expenses are recorded.

In large companies where entertaining expenses are incurred the managers and other heads of departments are obviously reimbursed for such expenditure, and it therefore must be put on record in the books, but in the case of one man businesses and professions such as an architect's, the matter is different.

For instance, many professional men in the course of their daily routine have, for business or professional purposes to entertain customers or clients and they usually pay for such expenses out of their personal cash and forget to make any record of them.

When the accounts are reviewed for income tax purposes, inspectors are always wary of expenses claimed beyond accounting records, that is to say, the taxpayer says: "But I have never charged anything for entertaining expenses, and I ought at least to have an allowance, say, of £50." It is therefore absolutely necessary to treat this item on exactly the same terms as any other expense, and make out a proper voucher for the amount incurred with reasonable details thereof, which should be signed and dated and filed with the usual receipts.

The general practice is that all reasonable expenses of entertaining are allowed for income tax purposes, and if they are surcharged by the Inland Revenue Authorities an appeal should be entered forthwith and fought out—but provided records and proper explanations are forthcoming (if required) there should be no trouble in having this item treated as a charge.

Many companies and firms do not even show this item separately, but include it under headings such as "General Expenses," "Business Expenses," "Trade Expenses," etc., but to my mind this is apparently not necessary; why not make a clear item of this expense and stick to your figure?

### R.I.B.A. MAINTENANCE SCHOLARSHIP IN ARCHITECTURE.

The Royal Institute of British Architects offer for award in July 1930 one R.I.B.A. Maintenance Scholarship in Architecture of a maximum value of £100 per annum tenable from October 1930.

The Scholarship will be tenable in the first instance for one year, and will be renewable for two further periods of one year each. It is intended to enable a student, who has not the necessary means, to attend an approved course at one of the Schools of Architecture recognised for exemption from the R.I.B.A. examinations. Students who are already taking such a course are also eligible to apply for a Scholarship.



The value of the Scholarship, up to the limit of £100, will depend upon the financial circumstances of the parents or guardians of the candidates. The parents or guardians will be required to furnish particulars on the proper form, of their financial position.

Particulars and forms of application may be obtained free on application to the Secretary to the Board of Architectural Education, R.I.B.A., 9 Conduit Street, London, W.1.

The closing date for the receipt of applications, duly completed, is 30 June 1930.

#### R.I.B.A. PRIZES AND STUDENTSHIPS.

Attention is called to the fact that the Council of the R.I.B.A. have decided that after 31 January 1931, in addition to the existing qualifications, competitors for the Tite Prize must at least be registered Probationers R.I.B.A., while competitors for the following prizes must at least be elected Students R.I.B.A. :—

- The Soane Medallion.
- The Victory Scholarship.
- The Owen Jones Studentship.
- The Silver Medal for Essays.
- The Henry Saxon Snell Prize.
- The Alfred Bosson Travelling Studentship.
- The Grissell Prize.
- The Neale Bursary.
- The Hunt Bursary.
- The Godwin and Wimperis Bursary.

## Notices

#### THE FIFTEENTH GENERAL MEETING.

The fifteenth General Meeting (Business) of the Session 1929-30 will be held on Monday, 16 June 1930, at 8 p.m., for the following purposes :—

To read the Minutes of the Ordinary General Meeting held on Monday, 26 May 1930; formally to admit members attending for the first time since their election.

To proceed with the Election of Candidates for membership whose names were published in the Journal for 24 May (see pp. 534-535).

To read the report of the Scrutineers appointed to examine the voting papers for the election of the Council and Standing Committees for the Session 1930-31.

#### INFORMAL DISCUSSION OF MATTERS OF PROFESSIONAL INTEREST.

At the conclusion of the above General Meeting, there will be an informal and private discussion of matters of current professional interest or concern. Members are invited to bring up for discussion, with or without notice, subjects of professional interest or difficulty.

#### THE RESTORATION OF ST. PAUL'S CATHEDRAL. SPECIAL GENERAL MEETING AND EXHIBITION.

MONDAY, 23 JUNE 1930, AT 8.30 P.M.

A Special General Meeting will be held on Monday, 23 June 1930, at 8.30 p.m., when a lecture on "The

Restoration of St. Paul's Cathedral" will be delivered by Captain C. Stanley Peach [F.], and Mr. W. Godfrey Allen [F.].

The lecture will be illustrated by lantern slides and by an exhibition of models, masonry specimens, drawings and photographs.

The exhibition will be open daily in the R.I.B.A. Galleries from Monday, 23 June to Saturday, 28 June inclusive, between the hours of 10 a.m. and 8 p.m. (Saturday, 5 p.m.).

#### BRITISH ARCHITECTS' CONFERENCE, NORWICH, 18-21 JUNE 1930.

Final arrangements for all the events of the Conference are now being made. It is hoped that all members who have not already done so will at once refer to the programme sent to them with the JOURNAL on 10 May, and send in their names for such of the events as they desire to take part in without delay.

Members of the R.I.B.A. and the Allied Societies who are officials of local authorities are asked to notify the Secretary R.I.B.A. if they would like formal invitations to be sent to such authorities to appoint delegates to the Conference.

#### MEMBERS' TOUR TO THE UNITED STATES AND CANADA.

In view of the success which attended the visit to the United States and Canada of a party of members of the R.I.B.A. last year, and as many members who were unable to avail themselves of that opportunity expressed a desire to undertake such a trip on a future occasion, it has been decided to organise a further party this year.

The numerous advantages to be gained by undertaking a visit to the United States and Canada from an architectural point of view will be obvious, particularly when the visit is made in company with fellow-members of the Institute.

The suggested tour will include New York, Philadelphia, Washington, Detroit, Niagara Falls, Toronto, Ottawa and Montreal, and notes regarding the places of interest from an architectural standpoint, compiled by Mr. Percy E. Thomas, O.B.E., F.R.I.B.A., the leader of last year's party, will be available for members.

The duration of the trip will be approximately one month, and the cost, including cabin class accommodation on the Atlantic steamers, hotel accommodation in the United States and Canada, rail fares, etc., will be about £80. This amount is exclusive of meals ashore, gratuities, transfer of passengers and baggage between stations, steamers, hotels, etc., and sight-seeing trips.

The party will travel from Liverpool for New York by the Cunard Liner *Samaria* on 5 July, returning by the *Ascania* from Montreal to Plymouth and London on 25 July.

Relatives and friends of members will be welcomed. Members interested are requested to apply to Mr. H. T. Leese, The Cunard Steamship Company, Ltd., 26-27, Cockspur Street, London, S.W.1, who will be pleased to forward a complete itinerary, etc., on request.



## OVERSEAS APPOINTMENTS.

Members contemplating applying for appointments overseas are recommended to communicate with the Secretary R.I.B.A., who will supply them with any available information respecting conditions of employment, cost of living, climatic conditions, etc.

WILLIAM H. HAMLYN,

*Hon. Sec., R.I.B.A. Salaried Members' Committee.*

## ELECTION OF MEMBERS, 1 DECEMBER 1930.

Associates who are eligible and desirous of transferring to the Fellowship are reminded that if they wish to take advantage of the election to take place on 1 December 1930, they should send the necessary nomination forms to the Secretary R.I.B.A. not later than Saturday, 27 September 1930.

## LICENTIATES AND THE FELLOWSHIP.

The attention of Licentiates is called to the provisions of Section IV; Clause 4 (b) and (c) of the Supplemental Charter of 1925. Licentiates who are eligible and desirous of transferring to the Fellowship can obtain full particulars on application to the Secretary R.I.B.A., stating the clause under which they propose to apply for nomination.

## Competitions

## BANGOR (CO. DOWN) LAY-OUT OF SEA-FRONT.

The Bangor (Co. Down) Borough Council invite architects and town planners to submit, in open competition, designs for the lay-out of the sea-front in the Borough.

Assessor: Professor Patrick Abercrombie, M.A. [F.].

Premiums: £150 and £50.

Last day for receiving designs, 1 September 1930.

Conditions of the competition may be obtained on application to Mr. J. Milliken, Town Clerk, Borough Council Offices, Bangor, Co. Down. Deposit £1 1s.

[Conditions are under consideration by the Competitions Committee.]

## CARLISLE: ENGLISH STREET IMPROVEMENT.

The Corporation of the City of Carlisle invite architects to submit, in open competition, designs for the façade to English Street and the Victoria Viaduct, suitable for Shops and Business Premises.

Assessor: Mr. Francis Jones [F.].

Premiums: £300, £200 and £100.

Conditions of the competition may be obtained on application to Mr. Percy Dalton, A.M.Inst.C.E. [A.], City Engineer, 18 Fisher Street, Carlisle. Deposit £1 1s.

## CHELMSFORD: PUBLIC LIBRARY AND MUSEUM.

The Chelmsford Corporation invite architects to submit, in open competition, designs for a New Public Library and Museum, at a cost of £25,000.

Assessor: Mr. H. V. Lanchester [F.].

Last day for receiving designs, 14 June 1930.

Conditions of the competition may be obtained on application to Mr. G. E. Barford, Town Clerk, Town Clerk's Office, Chelmsford. Deposit £1 1s.

## CHULMLEIGH, DEVON: PROPOSED MINISTER'S HOUSE.

The Competitions Committee desire to call the attention of members to the fact that the conditions of the above competition are not in accordance with the regulations of the R.I.B.A. The Competitions Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime members should not take part in the competition.

## KINGSTON-ON-THAMES: PUBLIC BATHS.

The Kingston-on-Thames Corporation invite architects to submit in open competition, designs for the erection of public baths, with the use of one as a public hall.

Assessor: Mr. J. Ernest Franck [F.].

Premiums: £300, £200, £100 and £50.

Last day for receiving designs, 14 June 1930.

Conditions of the competition may be obtained on application to Mr. A. W. Forsdike, Town Clerk, Town Clerk's Office, Kingston-on-Thames. Deposit £1 1s.

## LIVERPOOL: DEVELOPMENT OF SITE.

The General Building Syndicate, Ltd., invite architects to submit, in open competition, schemes for the development of a site at Liverpool fronting St. Johns Lane, Queen Square and Roe Street.

Premiums: £250, £100 and £50.

Conditions of the competition may be obtained on application to The Secretary, General Building Syndicate, Ltd., 36 St. Martin's Lane, London, W.C.2. Deposit £2 2s.

[Conditions have not yet been received.]

## LIVERPOOL: PROPOSED PIER HEAD IMPROVEMENTS.

The Liverpool City Council propose to offer premiums of 1,000 guineas and 500 guineas in connection with a competition for the improvement of the amenities of the Pier Head. [Conditions are not yet available.]

## LUTON: TOWN HALL.

The Town Council of Luton invite architects to submit, in open competition, designs for a new Town Hall and Municipal Buildings, at a cost of £250,000.

Assessor: Sir A. Brummell Thomas [F.].

Premiums: £500, £300, £200, and £100.

Last day for receiving designs, 31 July 1930.

Conditions of the competition may be obtained on application to Mr. W. Smith, Town Clerk, 2 Upper George Street, Luton. Deposit £2 2s.

## WEST HUMBERSTONE: LIBRARY.

The Leicester Corporation propose to invite local architects to submit, in competition, designs for a Library, to be erected at West Humberstone.

Assessor: Mr. Hugh Gold [F.].

Premiums: £75, £50 and £25.

[Conditions are not yet available.]



**WORTHING: MUNICIPAL BUILDINGS.**

The Corporation of Worthing invite architects to submit, in open competition, designs for new Municipal Buildings, to be erected in Chapel Road, Worthing.

Assessor: Mr. Henry V. Ashley, V.-P.R.I.B.A.

Premiums: £350, £250, £150 and £50.

Last day for receiving designs, 5 July 1930.

Conditions of the competition may be obtained on application to Mr. J. Kennedy Allerton, Town Clerk, Worthing. Deposit £1 1s.

## Members' Column

**CHANGE OF ADDRESS.**

JAMES RANSOME, F.R.I.B.A., has moved his London office from 21 Suffolk Street, Pall Mall, to 24 Great James Street, Bedford Row, W.C.1., where he practices in partnership with Lionel F. R. Coote, A.R.I.B.A., under the name of James Ransome and Coote. Telephone Holborn 9024.

**MR. ALFRED H. DURNFORD**

Mr. ALFRED H. DURNFORD, I.R.I.B.A., having severed his partnership with Messrs. Bethell Swannell and Durnford, will in future practise at Walker House, 418/422, Strand, W.C.2.

**PRACTICE WANTED.**

Members wishes to purchase an old-established practice, West of England or South Coast preferred, or would entertain a partnership in a firm of standing. Apply Box 2640, c/o The Secretary, R.I.B.A., 9 Conduit Street, W.

**PARTNER WANTED.**

A.R.I.B.A., with good office in Bloomsbury district, wishes to meet another with view to sharing running expenses, and affording mutual assistance.—Apply Box 2553, c/o The Secretary, R.I.B.A., 9 Conduit Street, W.1.

**PARTNERSHIP REQUIRED.**

Member desires partnership in established practice in or near London. Experienced in alterations and additions, factory and domestic work, etc.—Apply Box 1181, c/o The Secretary, R.I.B.A., 9, Conduit Street, W.1.

**OFFICE ACCOMMODATION REQUIRED.**

Member requires two rooms in office near Strand, must be well lit and suitable. State rent and all particulars.—Apply Box 6248, c/o The Secretary, R.I.B.A., 9 Conduit Street, W.1.

**OFFICE ACCOMMODATION VACANT.**

Associate of the Institute wishes to meet another member who will take a part share of his office which is situated near Piccadilly Circus.—Apply Box 2353, c/o Secretary R.I.B.A., 9, Conduit Street, W.1.

**WANTED.**

Chief of drawers for architectural drawings.—Write Manning, 9 Smith Street, S.W.3.

## Minutes XVI

Session 1929-1930.

At the Fourteenth General Meeting (Ordinary) of the Session, 1929-1930, held on Monday, 26 May 1930, at 8 p.m., Sir Banister Fletcher, F.S.A., President, in the Chair.

The attendance book was signed by 27 Fellows (including 9 Members of Council), 33 Associates (including 2 Members of Council), 6 Licentiates (including 1 Member of Council), 3 Hon. Associates and a large number of visitors.

The Minutes of the Annual General Meeting held on 12 May 1930, having been published in the JOURNAL, were taken as read, confirmed, and signed as correct.

The President announced the decease of William John Locke, Secretary of the R.I.B.A. from 1897 to 1907, elected Hon. Associate, 1908; and it was Resolved that the regrets of the Institute for his loss be entered on the Minutes and that a

message of sympathy and condolence be conveyed to his relatives.

Mr. C. Leonard Woolley, M.A. (Hon. A.), having read a paper on "Recent Excavations at Ur," a discussion ensued, and on the motion of Dr. J. W. MacKail, M.A., F.B.A. (Hon. A.), seconded by Dr. Raymond Unwin (F.), a vote of thanks was passed to Mr. Woolley by acclamation and was briefly responded to.

The proceedings closed at 9.40 p.m.

\*This Paper will be published in the next issue of the JOURNAL on 21 June.

**ARCHITECTS' BENEVOLENT SOCIETY**

(Insurance Department).

**HOUSE PURCHASE SCHEME**

(for property in Great Britain only).

The Society is able, through the services of a leading Assurance Office, to assist an Architect (or his client) in securing the capital for the purchase of a house for his own occupation, on the following terms:—

**AMOUNT OF LOAN.**

Property value exceeding £666, but not exceeding £2,500, 75 per cent. of the value.

Property value exceeding £2,500, but not exceeding £4,500, 66½ per cent. of the value.

The value of the property is that certified by the Surveyor employed by the Office.

**RATE OF INTEREST**

In respect of loans not exceeding £2,000 5½ per cent. gross  
" " in excess of " 5½ " "

**REPAYMENT.**

By means of an Endowment Assurance which discharges the loan at the end of 15 or 20 years, or at the earlier death of the borrower.

**SPECIAL CONCESSION TO ARCHITECTS.**

In the case of houses in course of erection, it has been arranged that, provided the Plan and Specification have been approved by the Surveyor acting for the Office, and the amount of the loan agreed upon, and subject to the house being completed in accordance therewith, ONE HALF of the loan will be advanced on a certificate from the Office's Surveyor that the walls of the house are erected and the roof on and covered in.

NOTE.—In 1928, over £20,000 was loaned to architects under this scheme, and as a result over £100 was handed to the Benevolent Fund.

If a quotation is required, kindly send details of your age next birthday, approximate value of house and its exact situation, to the Secretary Architects' Benevolent Society, 9 Conduit Street, London, W.

Members sending remittances by postal order for subscriptions or Institute publications are warned of the necessity of complying with Post Office Regulations with regard to this method of payment. Postal orders should be made payable to the Secretary R.I.B.A., and crossed.

It is desired to point out that the opinions of writers of articles and letters which appear in the R.I.B.A. JOURNAL must be taken as the individual opinions of their authors and not as representative expression of the Institute.

**R.I.B.A. JOURNAL.**

DATES OF PUBLICATION.—1930.—21 June; 12 July; 9 August; 20 September; 18 October.



# Journal of the Royal Institute of British Architects

VOL. XXXVII. No. 16

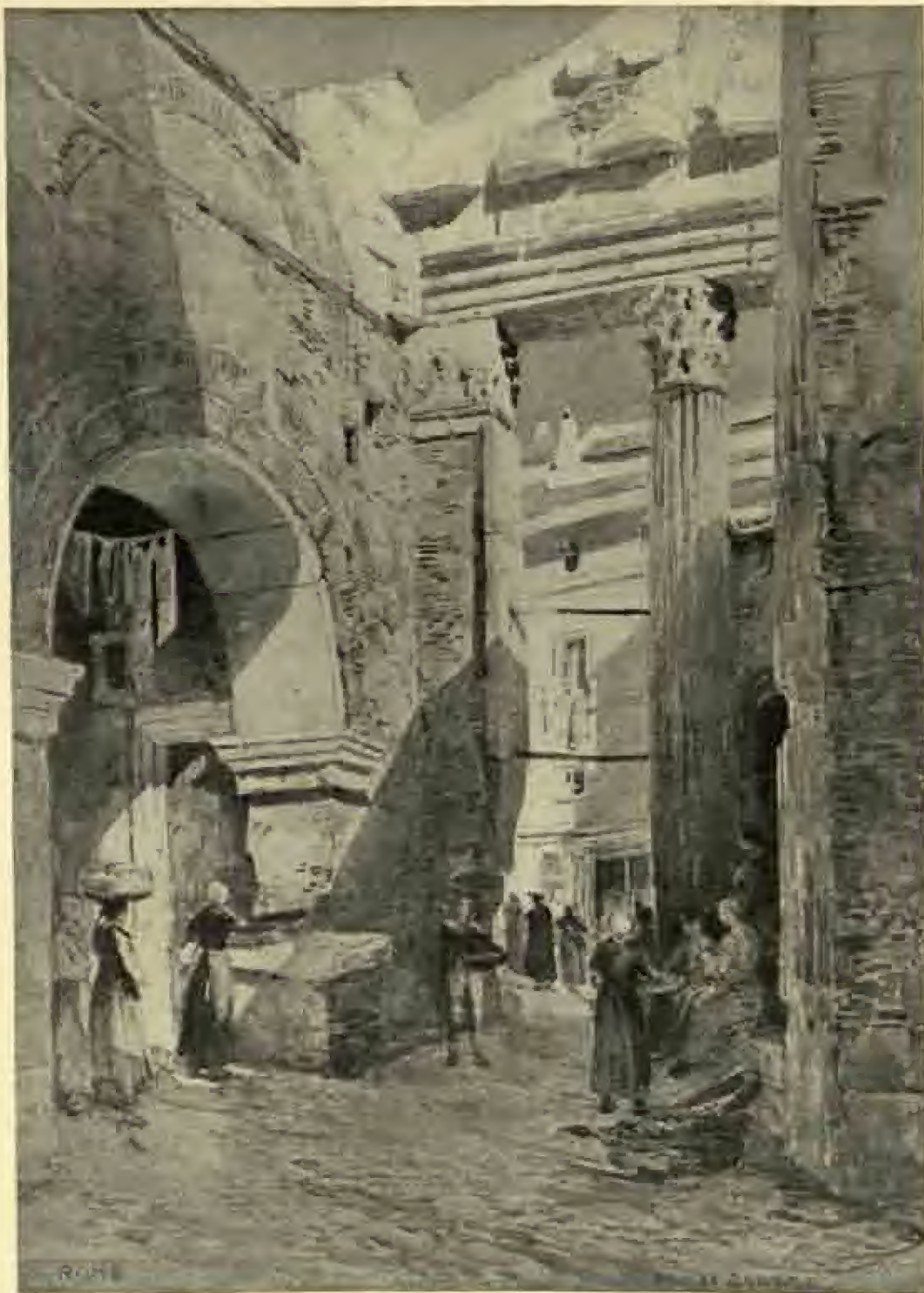
THIRD SERIES

21 JUNE 1930

## Contents for 21 June 1930

	Page
ROME. Water-Colour Sketch by Sir Ernest George, R.A.	Frontispiece
RECENT EXCAVATIONS AT UR. By C. Leonard Woolley, M.A. [ <i>Hon. A.R.I.B.A.</i> ]	575
DISCUSSION :	
SIR BANISTER FLETCHER, F.S.A. [ <i>President R.I.B.A.</i> ]	586
J. W. MACKAIL, M.A., LL.D., F.B.A. [ <i>Hon. A.</i> ]	584
DR. RAYMOND UNWIN [ <i>F.</i> ]	584
A. S. WHITBURN [ <i>A.</i> ]	585
F. STANLEY HALL, M.A. [ <i>F.</i> ]	585
HENRY M. FLETCHER, M.A. [ <i>F.</i> ]	585
SIR JOHN SULMAN [ <i>F.</i> ]	585
THE ARCHITECTURAL ROOM AT THE ROYAL ACADEMY EXHIBITION By F.R.I.B.A.	587
EXHIBITION OF STUDENTS' WORK AT THE CENTRAL SCHOOL OF ARTS AND CRAFTS. By Professor A. E. Richardson, F.S.A. [ <i>F.</i> ]	587
REVIEW :	
NOTES ON SOME RECENT FOREIGN PERIODICALS. By Graham B. Tubbs [ <i>A.</i> ]	588
NOTES BY MEMBERS OF THE SCIENCE STANDING COMMITTEE :	
A STUDY IN HEATING AND VENTILATION IN SCHOOLS. By Alfred H. Batnes [ <i>L.</i> ]	589
CORRESPONDENCE :	
EMENDATA IN LIGHT. By Percy J. Waldrain, F.S.I. [ <i>L.</i> ]	590
LONDON BUILDING ACTS COMMITTEE	590
STANDARDS OF ADEQUACY OF DAYLIGHT ILLUMINATION AND REASONABLE PENETRATION	591
ST. PAUL'S CATHEDRAL	591
ROME SCHOLARSHIPS IN ARCHITECTURE	591
SCHOOLS OF ARCHITECTURE.—SIXTH SERIES :	
(1) THE SCHOOL OF ARCHITECTURE AT THE GOVERNMENT SCHOOL OF ART, BOMBAY. By Professor Claude Batley [ <i>A.</i> ]	592
THE LIBRARY	597
ALLIED SOCIETIES :	
ROYAL INCORPORATION OF ARCHITECTS IN SCOTLAND	598
ESSEX, CAMBRIDGE AND HERTFORDSHIRE SOCIETY OF ARCHITECTS	598
OBITUARY :	
SIR EDWARD BRABROOK, C.B., F.S.A. [ <i>Hon. A.</i> ]	598
JAMES H. CRAIGIE [ <i>F.</i> ]	598
W. FINNEGAN [ <i>A.</i> ]	599
NOTES FROM MINUTES OF COUNCIL	599
ARCHITECTURAL COMPETITIONS	600
NEW BUILDING MATERIALS AND PREPARATIONS	600
AUSTRALIAN ARCHITECTURAL STUDENTS' CLUB IN LONDON	600
CRICKET MATCH	600
ARCHITECTS' GOLFING SOCIETY	600
THE ANNUAL ELECTIONS	601
NOTICES	602
COMPETITIONS	603
MEMBERS' COLUMN	603
MINUTES XVII.	603
A.B.S. SCHEME OF INSURANCE	604





Rome

From a Water-Colour sketch by Sir Ernest George, R.A.

R.I.B.A. Collection





## Recent Excavations at Ur

[A Paper read before the Royal Institute of British Architects on Monday, 26 May 1930.]

BY C. LEONARD WOOLLEY, M.A., HON. ASSOCIATE R.I.B.A.

IT would be very easy for me to give a lecture dealing entirely with the contributions to art and to history which have resulted from our work at Ur, but before this audience, and in my official capacity, as I may say, as an Honorary Associate, I have felt it to be rather my duty to dwell at greater length on the architectural discoveries which have been made in the course not only of the last winter, but during the last eight years. I certainly propose to deal more with recent discoveries, as announced, but I shall have recourse to earlier finds in order to make good certain arguments by which I hope to convince you that, from an architectural point of view as well as from many others, the excavations at Ur have been of prime importance.

I shall begin with something which does not look architectural or interesting. The main object of all our work is, of course, history, history in all its phases and branches, and that is not easy to secure. In recent seasons we have been amazingly lucky in finding in the Royal Tombs of the prehistoric kings treasures of gold and silver and stone unequalled for their age and artistic merit in any other country. I do not say that at a later period you do not get finer things, as in Egypt; but taking into consideration date and quality, Ur is given extraordinary pre-eminence by its finds. But all these things are comparatively valueless unless we take them in their true perspective and historical sequence where dates are lacking. Last

winter we were most fortunate in gaining evidence which puts into proper perspective all the discoveries of recent years.

So I shall begin by showing you what may look queer but what I hope you will eventually find to be absorbingly important.

Here is a section of the pit which was dug by us last winter (Fig. 1). Our object was to go back to the beginnings at Ur of the Chaldees. We selected a part of the city site where denudation by the weather had had great effect. All the later buildings in this area had been swept away by wind and rain, and the ground level was that of 3200 B.C. From that level we dug down to a depth of 61 feet. This is not an imaginary section, it is not schematic, it shows what was found to exist, and most of the evidence can still be seen *in situ*. Working from the bottom upwards, you see here the sea level. You do not get below that level any trace of human occupation, but you get hard green clay with the brown stains which represent the roots of marshy plants. Above is the soil formed partly by mud collected round the stems of reeds, partly by the decay of the reeds themselves. In this deposit there is broken pottery. There was, rising out of the primitive marshes which were Mesopotamia, a small island where there was already a settlement. We have dug on the outskirts of that island, and the pottery represents the household debris which was flung into the marshes round about the dwellings. The formation of the organic soil by



decayed reeds gradually raised the level until it rose above the level of the sea, and land was formed, and immediately afterwards men moved their settlements down on to the new ground. The next deposit is composed of household refuse, ashes, broken pottery, etc. At this end we could

stems—that is to say, it was the clay plastering of a reed hut which had been accidentally burned. Even from the fragments we could see the form of construction, and it was that in use at the present day by which reed stems are bound into fascines, and these are planted upright into the soil, and

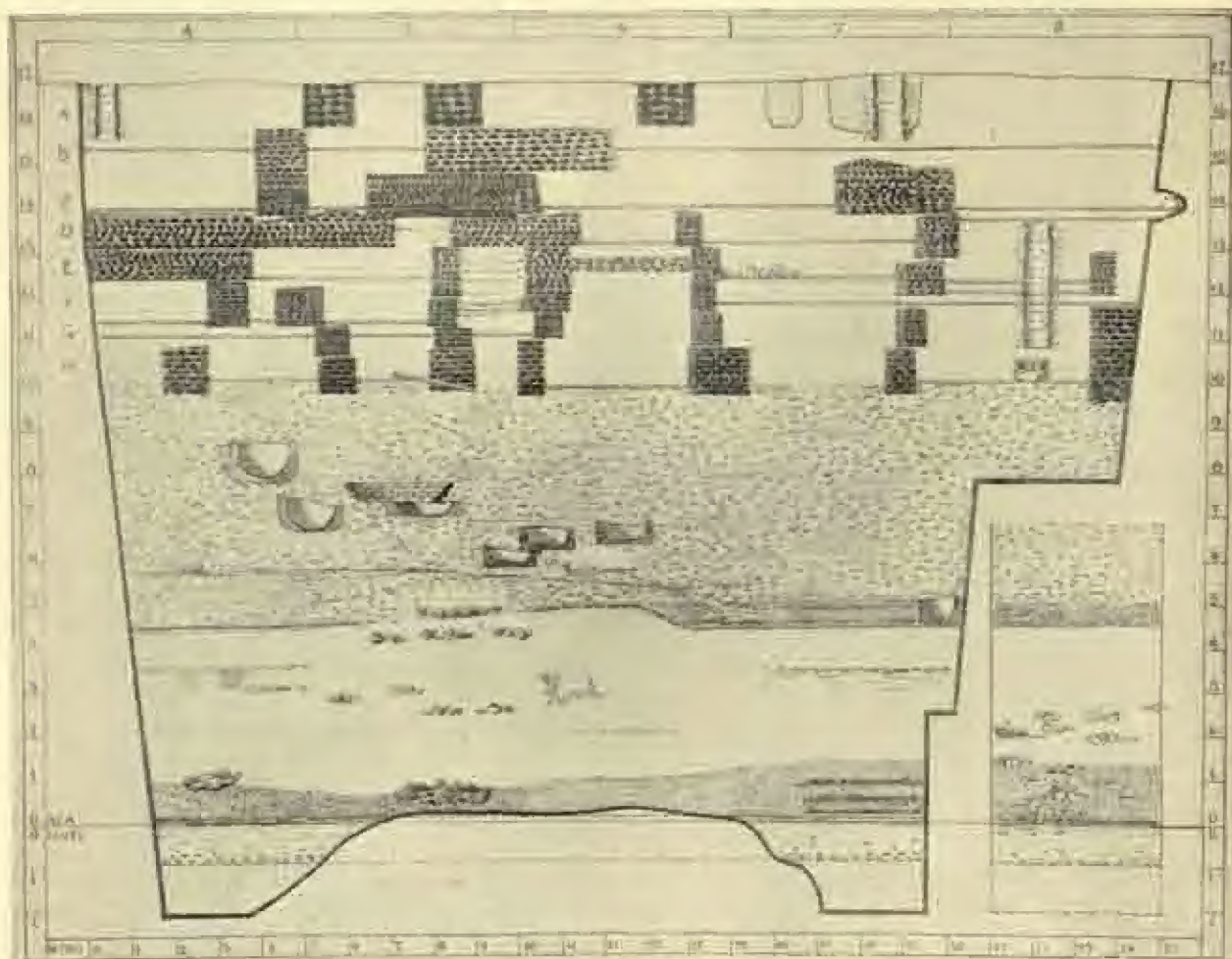


FIG. 1.—SECTION OF PIT CUT DOWN TO VIRGIN SOIL THROUGH SAND DEPOSIT

distinguish in that deposit, which attains a thickness of 6 feet, three floor levels of beaten clay. Here a more interesting discovery was made. We found across our pit a mass of fragments of clay, burnt accidentally, so that the lumps were black and red and hard. Each piece was smooth on one side, flat, convex or concave; on the other side it bore deeply impressed the marks of parallel reed

between them are stretched mats. Usually, nowadays, they are plain woven mats, but here they were palisades of vertical reed stems, which must have been tied together by string. That mat is found among present-day Arabs. Over that reed structure was plastered mud, as at the present time. But the primitive builder of Ur was careful to preserve the constructional features



of his house, and, as we see from the clay lumps, fascines in relief formed half-columns against the hut surface and the wall. And we see here some feeling for architecture at a date which is literally antediluvian. And I use the phrase advisedly. Above the collection of household debris there is a heavy stratum, 11 feet thick, of clean sand, water-borne and deposited from the actual Flood of Sumerian legend, which legend, of course, is at the bottom of the story of Noah. Therefore, we are dealing with antediluvian remains; and here we have the hut dwelling which we should expect, because in the Sumerian story of the Flood, the god who warns Uta-Napishtim of its coming, hesitating to betray the secret to a mere man, prefers to tell it to the house, and whispers to the house wall "Reed hut, reed hut, hear me!"

Elsewhere in the stratum we have evidence of a higher civilisation in the shape of a fallen piece of wall built of good moulded mud bricks; they were accidentally burned in part and kept their shape and form, but originally they were unbaked bricks. They showed that civilisation had reached a point where, side by side with daub and wattle work, you get definite building with moulded bricks. Over the whole of this occupation level lies the great Flood deposit, rising 11 feet. Dug down into that was a certain number of graves of people who lived immediately after the Flood. They were culturally of the same kind as the people who lived before it; they were clearly survivors of the disaster. And in those graves we have many objects which throw light on the lives of the pre-Flood people.

Here is a photograph of the moulded bricks: they are flat-topped bricks, measuring 11 inches by 5 inches by  $2\frac{1}{2}$  inches; I think you can distinguish in the photograph the difference in the colour of the soil: below is the black house refuse of the habitation level, and above the bricks is the clean sand brought down by the deluge.

Here is one of the graves of the people who lived immediately after the Flood, dug down into the clean sand. The body was laid out at full length; but in the whole of the rest of the history of Ur, or of Mesopotamia, from nearly 4000 B.C. on to 600 A.D., we have no single instance of a body laid out at full length; the dead are always laid on their side in the attitude of someone falling asleep. But here is a different ritual of burial: the man is extended rigidly, and his hands are

across his pelvis. At his feet are put pots with the offerings for the soul of the dead, showing that there was, even then, a belief in the future life. And these pots are not like anything which we find at a higher level. Pottery is very important, there is so much of it, and it is very significant. It may be crushed and broken, but it seldom decays. Here we are dealing with what we call al'Ubaid pottery, vessels made not on a wheel but by hand, of white or green clay, decorated with black paint. In the earliest period, before the Flood, the ornamentation of the pottery is very elaborate, and extends over the whole surface of the vessel: after the Flood, however, people seem to have lost heart, and so the decoration becomes much simpler; finally it dies out altogether. In the next age the wheel is introduced, and with the introduction of machinery the man's delight in his own handicraft seems to have gone, and the pottery degenerates.

This is post-diluvian ware. Here is a vessel with spout and handle, like a teapot, and here a bowl whose inner face is corrugated before baking, so that you can grind in it the boiled barley, which was then, as it is now, one of the staple foods of the people. Here are two figures which were found in these graves (Fig 2). Similar figures were found in the house level of the Flood deposit. They are unlike anything else, in Mesopotamia or elsewhere. They are always female, always nude, and there are two types: one with the hands on the hips or the sides, and the other nursing an infant. The bodies are reasonably well modelled, rather graceful than otherwise, showing in the artists a distinct observation of nature, in contradistinction to the heads, which are bestial. You would hardly imagine that the man who did so well with the body could not have done better with the heads. They are more like the faces of tortoises, with grotesque domed heads wearing head-dresses made of bitumen. Surely these figures are intended to represent not women, but goddesses or demons, and afford definite evidence of the existence of a religious feeling in the antediluvian people. And in that case, if I am right, they have extraordinary interest, because in the royal cemetery of a thousand years later religious emblems are very rare, and it is only when we get back to this earliest period of occupation that we find that the first settlers who came from the prehistoric uplands of Asia into the newly formed river bank brought with



them something in the nature of a religion, with a definite conception of what Deities might be. Here is an example of a female figure holding a child, and I think you will agree, especially if you see what

heavy deposit almost entirely composed of potsherds and grey ashes; it was refuse thrown out from a potter's factory, and in it we found kilns at different levels. Above that there were eight definite



FIG. 2.—CLAY FIGURES FROM GRAVES OF THE SAND PERIOD

the head of the child is like and the way it grasps the mother, that it represents a very modern tendency in sculpture.

Above the sand of the Deluge there is a very

building levels, all with good mud floors and heavy walls, sometimes as much as 14 feet thick, of mud brick. Here was a new point in Mesopotamian archaeology. It had been supposed until recently



that the earliest bricks in Mesopotamia, and some of the earliest in the world, were plano-convex. We have found that they were not the earliest, but men invented flat, square bricks before they started making these awkward shapes. The bricks of the pre-Flood level were square, and the bricks of which the kilns are made are also flat-topped. A certain number of bricks in the last stratum are made of cement. At the seventh level from the top the bricks were square and small and neatly made, and the pottery had changed, the black-and-white types giving place to a brilliant ware, painted in red, black and cream colour. Further changes came in the upper levels; bricks were plano-convex, and and in the top two strata we were dealing with pottery which might have been found in our royal graves.

Here is one of the kilns, and you can distinguish the circle of brickwork, and in it a large batch of pots in situ as they were left by the potter for baking. And here, found at almost the same level, is the earliest piece of stone sculpture we have found. This wild boar shows that art is no new thing for these people; note even the wrinkling of the upper lip over the tusk, which is most effective. The figure is only small, 5 inches in length, and, as the grooves in its sides show, was a decorative utensil rather than a work of art pure and simple; but all the more does it show that a very high level of culture existed at that time.

Here is one of the floors on our fifth out of the eight levels found; it illustrates how clear the archaeological evidence is. It is a floor of trodden clay 6 inches thick. All the pottery on it is necessarily dated later, and everything under the floor is necessarily earlier. With such well-defined divisions there can be no mistake about the date: it is true you cannot fix things by years, but you can get a definite and positive scheme or sequence of chronology.

Here is a characteristic piece of walling, also in the fourth period: the bricks were of mud, unbaked and round topped, and laid in the wall, not flat but herring-bone fashion; such herring-bone walling becomes almost a criterion of date, because by 2300 B.C. that custom had died out.

And here, coming from the second level and pointing to a certain degree of culture, is one of the drains, of which we found many, with the drain-pipes sloping through the soil and coming through the house wall, and the horizontal drain giving into a vertical pipe which goes down 25 feet into the

ground. That drain pipe and system must have dated from, at the latest, 3400 B.C.

I have dealt with only one pit, dug in the habitation area—that is to say, the town. Now I show you a section of the soil outside the early settlement, a section cut through the tomb area. The graves in the early period were made in the waste ground outside the city, and here is a section, measured in every detail. There is the soil still visible, forming a vertical wall at the end of the great excavation in which we have found our main cemetery. It is of great value because of its dating evidence. At the bottom we have one such grave as was found in the Flood deposit, and here and there we found in the soil graves which are, roughly, contemporary with the kiln stratum in the section shown last, and with that immediately above it; practically the period of the sculpture of the wild boar. It is all made of rubbish flung out from the ancient city, and therefore there is a definite talus running down the hill. Halfway up is a stratum containing a mass of clay-written documents and of jar-stoppers with seal impressions; such correspond roughly to the sealing wax impression on the tops of our wine bottles, but in this case they are made of mud. These things could be dated approximately on the ground of their writing, etc., at about 3750 B.C., in round figures. Above this stratum we have a broad belt of refuse within which lie all the graves of our great Royal cemetery.

After the stratum of 3750 B.C. rubbish was flung out one had to wait until the soil, by further rubbish-throwing, had reached this much higher level, which would take some time. Then the graves began to be made, and we are not far wrong in saying that the earliest graves of our Royal cemetery go back to 3500 B.C. Higher up still is a stratum containing further dating evidence in the shape of inscriptions and seal impressions. The Royal cemetery lies between these two strata.

Here are examples of written documents found in the big stratum 3750 B.C. They are not the earliest documents known in Mesopotamia, but they are very early. And the writing is semi-pictorial. Here are remarkable designs of the linear type, very elaborate and unlike anything else we know in the later art of Mesopotamia, but closely connected with the early seals and seal impressions from the Persian uplands at Suza, showing that we have Persian connections influencing the civilisation of this valley.

Here is another characteristic example from this



level, where the linear designs are complicated by the introduction of actual syllabic signs, some of which can be identified as the later signs of the Babylonian language, but others are obviously foreign.

From above our cemetery we got some seal impressions such as this. It gives the name of Mes-anni-padda, King of the First Dynasty, the first Ur ruler, and others give the name of his wife. We can date these to 3100, and so confirm the theory I put forward three years ago, which has not been invariably accepted by my associates, that the Royal cemetery dated between 3500 and 3200 B.C.

I might be asked, "What has this to do with the subject of architecture?" I want to put things in perspective; and here you have evidence for dating the cemetery, in which architectural discoveries of great importance have been made. I shall not describe the art objects, but I show you here a photograph of one of the Royal tombs. It is an early example; it is dangerous to speak in terms of years, but one might say 3400 B.C. or thereabouts. It is built entirely of stone, rough quarry rubble, but it was originally coated over with a fine cement, which hid the roughness of the work. It was underground, where one would not expect careful workmanship. But the floor was practically polished when it was first made, and the walls were equally smooth. The roof is pure corbel vaulting in rubble. One might expect that in many countries and at many periods. In another grave, probably of rather later date, there is a change. There are three chambers, all built of stone; the roof is half-way between the corbel and the vault, and the stones overlap, but as they rise towards the top they are tilted forward, and there is in the centre a keystone rather than a cap, so, clearly, progress is being made.

Another Royal tomb close by has a roof of burnt brick, and it is a true arch. The bricks are not moulded, the effect is given by radial mortar lines; but the top of the tomb was roofed in with a series of ring arches. And that is not all. The chamber as built in stone was square, a rough pendentive turned that into a curve, and the end of the roof had a half-dome. This may date to 3300 B.C., or thereabouts. And while the evidence given by that was, I think, absolutely convincing for the dome as well as for the standing arch, yet if further proof were needed we had it in the

tomb here, where a stone dome, built with pendentives, was found absolutely intact. An interesting feature was that there were holes in the masonry for timber. The builders, as they brought their roof in towards the centre, got frightened—the building of a dome must have been new to them—and they laid stout timbers across the opening, then planks, and put over the planks a mixture of mud and light straw, and got in that way the centring for the stone work, which stands well at the present day. We found the woodwork fallen under the dome decayed to dust. Here is a plan of the centring itself.

As to the walls of these tombs, a pit was dug to take the building, and the stones being entirely rough, they were built in a manner familiar to most of you, in a caisson. They put planks parallel to and at a certain distance from the earth sides of the pit, arranged the layer stones, and poured in mud and small rubble, then took the planks away. So a concrete building was familiar to the builders of Ur in the Third Millennium before Christ.

It is surprising that these methods of roofing were known so early. That they were not forgotten is shown by this photograph, which gives a doorway dated 1900 to 2000 B.C. A long time has passed since the tombs, but it is clear that the brickwork in the doorway is a fallen arch. It was made more certain because the walls were burnt brick at a height of 4 feet, and above that they were of mud brick and were still standing 10 feet high; and yet in the doorway there were these burnt bricks. The only explanation was that they had come from the arch over the door. But they preserve their shape, and the radial mortar between the bricks could be measured, and gave the right curve for the aperture of the door.

Taking it a stage farther, here we get a building of 1400 B.C., with the arch still standing above the ground. You will be more interested to see the drawing of it. Arches occur regularly in buildings of this late Babylonian age, showing that never throughout all Mesopotamian history, from the Fourth Millennium to the time of the Greeks and the Romans, was the use of the arch forgotten; and as we have the dome as well as the arch, we could argue that the dome was not forgotten either. So in this ancient Euphrates civilisation we see the origin of these architectural features which were strange to the Greeks and the western world until



Alexander invaded the country and discovered the ancient practice of its inhabitants, a practice which was eagerly taken up by the artists and architects in Alexander's train, and carried over by them into Europe. Nobody imagined that the arch and the dome had been employed so early. It has enabled us to reconstruct various buildings on lines which we should not have adopted a few years ago.

Here is a reconstruction of a small Temple of 1400 B.C., and it shows the free use of the arch and dome. Looking at the ground plan, any architect would be convinced that the reconstruction is correct. Take the central chamber, with the inordinate thickness of its walls, which makes one think the builders were not happy about their domes; I think no other interpretation is possible. It was not used invariably; the flat roof was common. Here is a reconstruction of a private house at the time of Abraham, 2000 or 1900 B.C., with central court and staircase going up to the upper chambers, which could be entered from a wooden gallery running round the courtyard. The roof drained inward, with gargoyles or gutters from which the rain drained away into the courtyard. The idea of there being a second floor to a private house in 1900 B.C. was heterodox, but every evidence confirmed it. Thus the courtyard was paved with brick and had a drain in the centre. The lips of that drain had broken away, and a new owner had laid another lot round the drain opening, but not over the whole of the court-yard. Water falling round the sides could not get into the drain to run away, so water did not fall there; the drain served water coming from above into the middle of the court.

Towards one corner of the court we find a burnt brick bedded on to the pavement with good clay, and round it fragments of burnt wood. I concluded we had there the support for a wooden upright holding the gallery. The argument for that is—as anybody who knows the Near East will agree—that if a Near East carpenter had to cut four uprights, one of them would be shorter than the other three and would need to be jacked up. Putting other posts in corresponding positions, we found that they agreed and they gave us a gallery three feet wide, and this supplied the reason for the staircase, which was found standing up to six feet. When the reconstruction had been worked out, on most unorthodox lines, we discovered a written tablet of the same period. Some

of the references were to buildings, and one said that rooms opening out from each other were unlucky, and rooms, to be fortunate, must open on to the courtyard. And here the only way you could avoid their opening out was to have a gallery running out of the courtyard itself; and I think we were fully justified by the evidence of the contemporary author.

The question of roofing is always with us. In one of the houses contemporary with that I showed you a reconstruction of just now we found two square brick pillars in the back court, which certainly held up either a balcony or an upper storey which had an open space below it.

To take this point a step farther I show you here a plan of a temple which we found last winter; it is Neo-Babylonian, 600 B.C.; it is simple and orthodox. In the forecourt we found a few courses of masonry, which I supposed to be the lower part of a table of offerings, a narrow bench, on which the people coming to the Temple would dedicate the offerings they made to the god. I was content with that explanation until we came to another building of the same date in which we had a similar burnt brick structure. This is a Temple built by Nebuchadnezzar. The entrance to the Temple itself is from the side corridor, there is an outer court, an antechamber, a Holy of Holies, and behind that the chamber where the priests went to work the oracle. If you look at it by this plan you will agree it harmonises with the ground plans of other temples. But it is astonishingly well preserved, and the walls stood 20 feet high; and what on the plan looks like an altar is seen to be a lofty pillar of brickwork intended to support the roof, and what I should have supposed to be a table of offerings was a high screened wall in front of the door of the antechamber; which also may have supported the roof, because I can think of no other purpose for it. And that is of further interest as throwing light on the use of the pillar in Mesopotamian buildings. This Temple was discovered in the last week of our season; it was a big job to dig out the 20 feet in a week, and it was clear that if we did so it would be reburied by drifting sand before we returned in the autumn, because it lay in the full track of the winds. Therefore, as we dug it out we roofed it in. So we had a fine building roofed and extraordinarily well preserved; the mud plaster remains and even the whitewash on the walls; one can go down there



and almost imagine that the temple had never been destroyed.

Another discovery made this year was of great importance because it touched on another disputed point in Mesopotamian archaeology, especially on its architectural side. There has been a curious "bee in the bonnet" of architectural writers and archaeologists about the use of the column in Mesopotamia, and every authority I know has strongly denied that the column was ever used by Mesopotamian builders until the Greek period. At Nippur the American Expedition forty years ago found a columnar building which was claimed to be of the date of about 1400 B.C.; but the head of the Expedition, a German, ruled it out—without having seen it—and said the column dated from the Greek period. The French, not far from Ur, found a column of moulded bricks which certainly dated to 2400 B.C., and then the archaeologists and architects said it looked like a column and was an imitation of one, but was not a column, because the column was not known! Dr. Hall, digging in 1919 at al-Ubaid, and later I myself, found there columns of wood overlaid with mosaic in mother-of-pearl, black stone and red, and there could not be any doubt, except in the mind of one German, who said they were not columns, but door-jambs. But that is not in itself enough, because the building dated from 3100 B.C. and the use of columns might conceivably have been dropped later. This year we found a building of about 2300 B.C.—that is to say, of the best building period of Ur, in which was a column, the lower part of the column made of bricks, segmental and moulded, resting on a burnt-brick base. I got some of the German excavators over, and they looked at it, and they said, "Though it looks like a column it might be the base of a statue or anything else." Mr. Whitburn pointed out to them that the column was equidistant between two mud-brick walls, on which were projections in the form of pilasters, and therefore we had to deal with something like a temple *in antis*. That is a new discovery, and shows that in 2300 B.C. the column was employed as a feature of architecture.

As I have touched on the architectural merits of the 23rd century, I show you a reconstruction of a familiar Ur building, namely, the great Ziggurat, and will tell you something about it which is not so familiar. Here is a photograph of the back

wall; there is not a single straight line in it; the face is battered from base to summit, and the battered line is a slight curve; and if you take the line from corner to corner it too is not straight but is curved outwards, on the same principle as the Parthenon. So that those theories of perspective or optics which have been worked out by the Greeks in the fifth century B.C. had equally well been worked out by the builders in brick in Mesopotamia 23 centuries before Christ.

At the end of the eight years of work we have been able to elaborate plans of at any rate the sacred area of the city, where the Temples lay, at different periods. Here are the buildings of 2300 B.C., showing the Ziggurat, the great Mannar Temple, the temple E-Mun-Makh, the temple of Nin-gal, the palace of the King (Fig. 3), and another building yet to be excavated. It is very interesting to take these plans and see how every important religious structure was preserved through the ages, but modified more or less by successive builders. They seldom deserted a site altogether, but generally left their hall-mark on its structure.

From 2300 B.C. we pass to 1400 B.C. The great courtyard has been enlarged in front, and the large Temple of Nin-gal has been in part replaced by a new building.

And, finally, we come to the late Babylonian period, when Nebuchadnezzar built his great wall round the sacred area. And though many of the buildings have disappeared owing to denudation by wind and rain, we have the Ziggurat there and other buildings, showing modifications which have been wrought in place in 1700 years.

At the end of this season at Ur, visitors to the site had their most dramatic experience. From that roofed-in Temple of which I showed you the photographs, where they could imagine themselves living again in the age of Nebuchadnezzar, they walked across part of the sacred area and into the great pit and down a flight of 100 stairs, where they left dated history behind them, and, passing through the deposit left by Deluge, could take their stand on mud floors made by men who lived before the flood. It was a dramatic thing to do, to pass through so many centuries in a few moments and in a few footsteps; that was the privilege of people who visited Ur, but it is not everybody who can go there. For those who remain at home and are interested in our work in its historical, architectural and artistic sides I think it is no less dramatic to



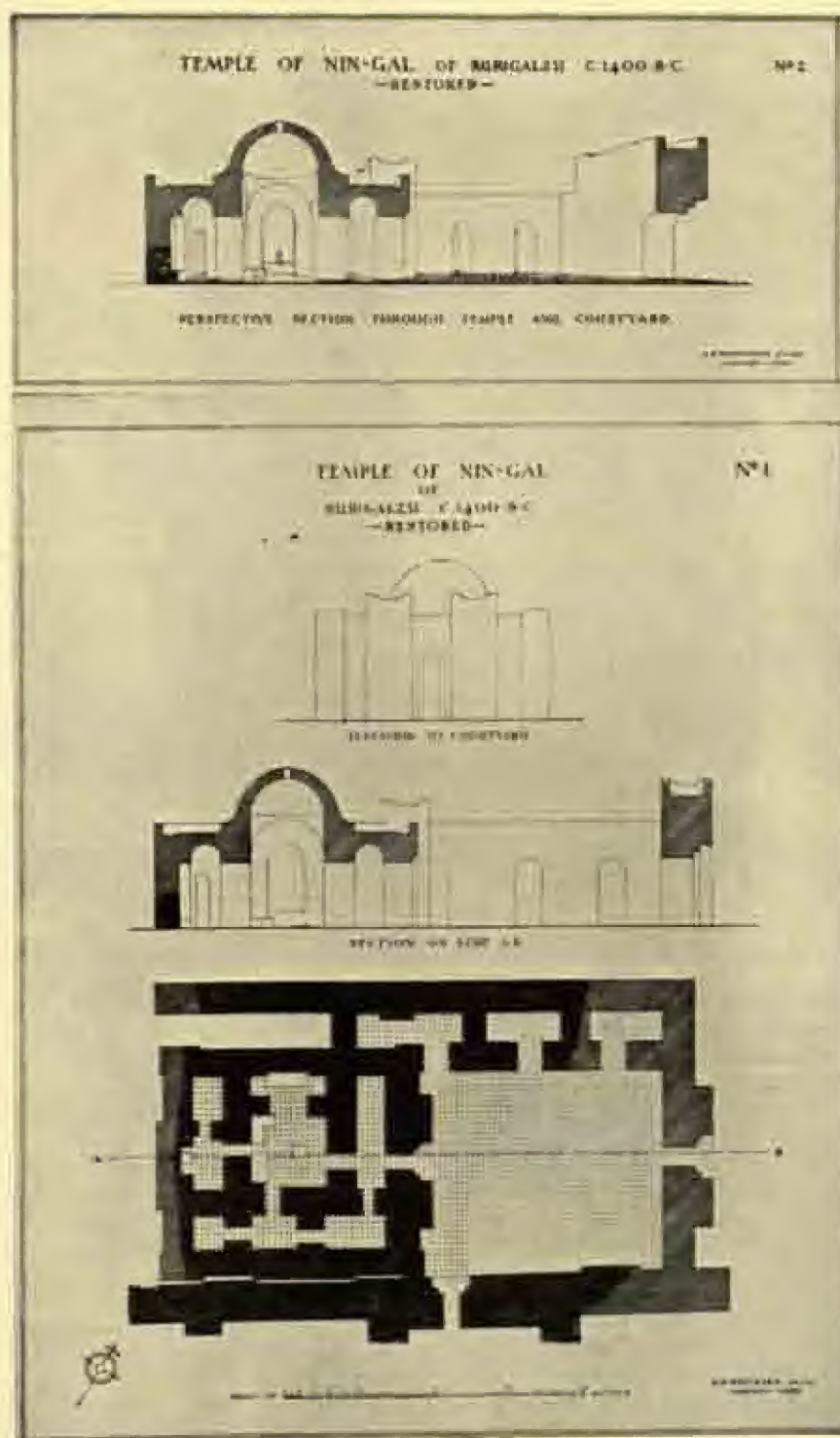


FIG. 3.—RESTORATION OF GROUND PLAN AND RECONSTRUCTION OF THE NIN-GAL  
TEMPLE OF KURIGALZU



be able to follow out, in plans and drawings and photographs and descriptions, the cultural vicissitudes of a people who lived so long, who invented so much, who preserved civilisation and handed it on to their followers, and have profoundly influ-

enced our modern life. We can, more in detail than the visitor to the spot, observe the changes that they introduced, the inventions that they made, and the debt which they laid upon the shoulders of us, their remote descendants.

## Discussion

Dr. J. W. MACKAIL [*Hon. Associate*], in proposing the vote of thanks to Mr. Woolley, said:—Owing to his extreme lucidity Mr. Woolley has made it possible even for the ignorant, the non-expert, to get some real grasp of what has been discovered at Ur, what it means, and the bearing of it upon history and upon a civilisation which has been continuous from 4000 B.C. or earlier until now. Perhaps most of us who are not engaged directly in archaeological studies have been so fascinated, so dazzled, by the amazing discoveries made in the Royal Cemetery, that marvellous mass of beauty and design and cruelty, that we are apt a little to forget to enquire what the civilisation was upon which that splendour rested, and what those people were like. We are getting now, thanks to Mr. Woolley and his staff of collaborators, to know something about that. And the more we know, as usual, the greater is the limit of the unknown, which stretches onward and onward in front of us. It would have seemed incredible, only a few years ago, that we should have been able to reconstruct a civilisation to such an extent as we have been able to do, a civilisation anterior to all previous knowledge. It is possible that in a future generation even these discoveries may become antiquated, and that we may find that the history of the human race has been continuous not for six thousand but for twenty thousand years. Who shall say?

Among the slides which Mr. Woolley showed us, and which specially interested me, were the linear seals with the marked Persian character of the ornamentation upon them. That is most interesting on this ground, that it shows the direct continuity of the whole motive and colour of Persian art from that time until now. And the other was, of course, the fresh light thrown upon the discovery and early development of the arch and its progeny, the vault. I suppose that the discovery of the arch was the greatest single discovery ever made in the art; that it was made so long ago, and that it did not spread uniformly is surprising; this last is a matter which calls for further investigation. There is no doubt the Greeks had every means of knowing all about the arch, and the vault also; they had only to go an easy journey, as easy as it is now, and it was there before them. But there are strange "blind spots" in the human mind, strange periods of blindness or absence of the creative faculty in

certain directions in human history and in the development of any nation or period of mankind. And the Greeks, more and more in the light of discovery, which makes their world so small a fraction of the greater world, are a puzzle in that they were so immensely clever and yet they stopped so short at certain points. The fact, as Mr. Woolley well showed, that the arch and the vault and columnar structure existed in Ur at that early date is in itself evidence that all these, and not the column alone, were within the Greek reach, and that there was no need for Alexander to conquer the Persian Empire in order that they should be introduced into the West.

We have not to-night been shown definite works of art to any extent, unless we include the little figure which shows the artistic conception of that time. I wonder what it was, and whether it had any religious significances; or whether it was such a thing as would be in a jeweller's window in our time in Bond Street—simply an ornament. There is a tendency to make the influence of primitive religion spread much more widely over the whole structure of human life than it does now, and probably than it ever did, and to seek in all habits and customs certain religious or superstitious significances, and in all works of human artistry some connection with the religion of which we know nothing, except that we suppose they are instances of its action.

Dr. RAYMOND UNWIN [*F.*], in seconding the vote of thanks, said:—Mr. Woolley has brought before us, this evening, some very interesting features of our human intellect and of our human history. One of the things he referred to reminds me very much of a story which Edward Carpenter brought back when he had been visiting Ceylon. He had been to some very sacred pagoda, a pagoda which was supposed to be so sacred that it never cast a shadow. He was talking to the priest, and they were standing in what Edward Carpenter thought was the shadow of the pagoda, and he said to the priest "Surely, how can you say that the pagoda does not cast a shadow? What is this?" The priest replied, "Oh, that cannot be the shadow of the pagoda for the sacred pagoda casts no shadow." It seems to me that some of the German excavators were nearly as blind in their refusal to see evidence as was that priest. And I think that, too, illustrates what Dr. Mackail has just said, how curiously



we do develop along limited lines, and how blind we may be in other directions.

I can voice my thanks and your thanks to Mr. Woolley all the better in that I do not happen to be one of those unfortunate people who try to teach the history of architecture to students at a time when all the theories on which we have been brought up seem to be torn out by the roots by Mr. Woolley, and instead of the arch coming after the lintel, and matters of that kind, we now learn that the arch preceded the lintel by very many thousands of years. I really must commiserate with the poor people who have to teach the history of architecture on the confusion into which Mr. Woolley must be throwing them at the present time. I am glad I am free from that confusion and for that reason I am the more heartily able to thank him for his work.

It is very marvellous to be carried back through thousands of years: to see how the persistence of a tradition, which many have doubted, turns out to be based on fact, the tradition of the Flood. We realise how very careful we must be not only in what we accept, but in what we venture to doubt. A marvellous permanence and persistency attaches to the tradition of certain great events which have been handed down from generation to generation to an almost unbelievable extent, long before the time when these traditions were helped by any written history such as we have to-day.

Mr. A. S. WHITBURN [*A.*]: It has been my great privilege to work with Mr. Woolley as his architect at Ur. I have now been out with him for three seasons, and strangely enough, when Mr. Hall first kindly introduced me to Mr. Woolley, I had just returned from America, where I had been studying modern architecture in New York, so that my going to Ur meant a sudden change from the most modern to the most ancient city in the world. Of course, I expected to find things very different, but in several respects found them very similar.

This, I know, sounds rather far-fetched; but the tendency in New York to-day is to use stock bricks for the modern sky-scrapers, with a very plain recessed ornament running from top to bottom; and at the first Temple I surveyed at Ur of the Chaldees I found the same idea carried out.

I think that what impressed me most as an architect working with Mr. Woolley was his keenness and enthusiasm throughout. I feel I cannot speak without referring to this. His keenness as an excavator will carry those with him through anything, and his enthusiasm will overcome any of the discomforts and inconveniences which may arise in Mesopotamia.

It is this recollection which gives me so much pleasure to be here to-night; to view the excellent work which Mr. Woolley has accomplished during the last ten years, and to see it so well appreciated.

Having been with him for three seasons I can say I have never been associated with anyone who has worked so hard to make a success of the undertaking which he has in hand.

Mr. E. STANLEY HALL [*F.*]: We have had the pleasure of listening to one of the best lectures we have ever had in this hall. With our architectural minds orientated modernwards at the present moment some of us might have felt we were very much dipping into the past, and that the lessons of the past were very much dead and buried and would not help us at the present day. When one reconstruction drawing appeared on the screen I heard someone mention: "Hallo, is that the latest thing by Howard Robertson?"—a flippant remark, perhaps, but it is true, as Mr. Whitburn said, that what we think is modern has been going on through the ages until we get, as one may say, almost "foxed" by the extraordinary feeling that civilisation seems to be a dreadful circle which completes itself and then begins again. I remember, in this Hall, at the time of the last Paris Exhibition, people were told they were only to have modern exhibits, and the English representative, who was lecturing here, said "I said to my immediate Chief, 'What do you mean by "modern"?' " His Chief replied "Well, if it is more than a thousand years old you need not refer to me; if it is less than a thousand years old you had better not have it." And that is what we have learned, the extraordinary age of the most modern things of to-day.

Mr. HENRY M. FLETCHER [*F.*] spoke of the enthusiasm with which he had listened to Mr. Woolley's lecture, and commented on the continuity of traditional methods shown in the modern reed huts, which are identical in construction with those of 6,000 years ago.

He mentioned that in the prehistoric pottery of Malta, as in that of Ur, the shapes were finer and the technique more accomplished in the Palaeolithic Age than in the Neolithic, and the prehistoric Maltese ideal of feminine beauty, in which the width is greater than the height, persists to the present day.

He agreed about the importance of Mr. Woolley's discoveries concerning the antiquity of arch, vault and column.

The PRESIDENT: We have a very old member of the Institute here, Sir John Sulman, who left this country to go and practise in Australia about forty years ago; and I think we should like to hear him say something, as he is back in England, and frequently comes to see us here.

Sir JOHN SULMAN [*F.*]: Australia has practically no history, but geologists tell us it is one of the oldest portions of the earth's surface. We have there a primitive race, so primitive that it probably antedates almost any other living race in the world. It is



dying out, but its beliefs and its civilisation, such as it was—they had not arrived at the pottery stage, they were hunters and fishers, nomads of the soil—have been recorded by the eminent scientist, the late Professor Sir Baldwin Spencer of Melbourne University. If you are interested in the origins and early developments of the human race, I can commend his work to you with every confidence. Do not confound our dark native race with blacks or negroes, they are not even negroid; they came from Asia. Australia is a continent shut off from the rest of the Asiatic world by tempestuous seas, and it would, no doubt, have been settled in the north by other and later races had it not been for the poor soil there. The East Indies are volcanic, and Java has a population of 40 millions, while we have only 6½ millions. There would have been a surge of other races into Australia if there had been a better soil. That was the reason it was unknown until the Dutch or the Spaniards discovered it. Our present civilisation and history extends to less than 150 years, and I venture, as a naturalised Australian, to say that I think we have done fairly well in carrying on the civilisation of Europe into this new yet old Continent.

I think I must have a tilt at my friend Raymond Unwin. He intimated to-night that the teachers of architecture did not know that the dome preceded the use of the lintel by the Greeks. For 25 years I was lecturer in our University in Sydney on Architecture and Building Construction, and, thanks to the excellent volumes of Perrot and Chipiez, I was fully aware of the development of the arch and the dome long before the Greek era, and I did not fail to tell my students that is where they had to look for the origin of them, and that their development and use in the modern world was owing to the Romans. I mention this because I would not like you to think I had not been telling them the truth.

The PRESIDENT: I am sure we are all agreed, ladies and gentlemen, that we have had a most instructive evening, and that we owe Mr. Woolley a very great debt of gratitude. I confess that while Mr. Woolley was reading his paper I was getting into rather a woolly state of mind, and when he began to tell us about the columns, and so on, it made me think a great deal about these early origins. Mr. Woolley will probably agree that the principal thing he has put before us to-night is that Assyria—which is practically Iraq—is as ancient as, or more so than

Egypt, whereas until recently we have considered that Egypt had the oldest of all civilisations.

Mr. Woolley has made some interesting and instructive remarks about the use of corbelled arches, and the early date he assigns to them shows that what we have been accustomed to regard as the beginnings of these arches, as you see them at Mycenae, can be traced to a much earlier period. He will probably agree with me that the ancient Egyptians knew all about the arch and used it frequently, as we can see in their buildings to this day. The Egyptians, however, considered that it was an unworthy architectural feature and that it should be only used in inferior buildings; so you practically never find it in their Temples.

I think the most interesting part of Mr. Woolley's paper was that in which he touched on the dome. We know it is an Eastern feature, and came through Constantinople (Byzantium), and later influenced the architecture of Europe. I must say that when he showed us domes on pendentives, which, I think, he said dated back to 2500 B.C. or even earlier, I thought that was a most arresting statement to anyone who has studied architecture, and I shall look forward with much pleasure to the published lecture, which will appear in the Institute JOURNAL. We know that the Romans themselves did not use the pendentive, but placed the dome over a circular plan; Mr. Woolley, however, has shown us that 2,500 years before Christ a dome was used over a square apartment, thereby necessitating the use of the pendentive, which was not used in Europe until the time of the Byzantines.

The use of columns in Mesopotamia is a big subject, but it may interest Mr. Woolley to recall that the late James Fergusson, who was the author of a great history of architecture, was of opinion that the Assyrians used columns to a large extent, but what he could not explain was how they made those columns when stone was so scarce, whereas Mr. Woolley has shown us most of the columns built of brick courses. The curved walls on the pyramid he showed are remarkable, and it strikes one as extraordinary that people building a massive wall should have used a curve on plan for apparently no reason.

Ladies and gentlemen, I should like to thank Mr. Woolley on your behalf for one of the most interesting addresses I have ever listened to, and I now put for your acceptance the vote of thanks.

The vote was carried by acclamation.





## The Architectural Room at The Royal Academy Exhibition, 1930

This year there is a reversion to the more severe methods of displaying architecture at the Royal Academy. There are none of the large dashing perspectives we were accustomed to enjoy in previous exhibitions. On the contrary, there are a number of elevations and some quite large plans. This is an improvement, I suppose, in theory: but actually I was unable to think that the general level of the designs shown and of the drawing of the elevations was high. No. 1322 dominates the room. This superb pencil drawing of Sir Giles Scott's central tower at Liverpool depends entirely on a thin clear line to show the design. There are no washes or shadows or tricks of effect. One hopes that these working drawings of that great building will be preserved for the nation. Sir Banister Fletcher gives us a photograph as well as the elevation and plan of a bank in No. 1274. Mr. Walter Tapper, with three large "Designs for a Town Church" (1300, 1314 and 1327), gives us the whole thing—plans, sections and elevations. If there could be four or five large photographs of the completed building as well we should have a real exhibition of an interesting ecclesiastical work. But we have not yet achieved the right relation between photography and drawing. We all know that very fine photographs of buildings can be made—often of great artistic value. The public would enjoy those, and architects would enjoy seeing in the same frame sufficient drawing—but no more—to show how the effect was created. Apparently this has been discouraged as well as perspectives. The result is that most of the exhibits are elevations executed in the mode of perspectives. No. 1369 is Mr. Berry Webber's accepted design for a new store in Kensington; it appeared to be a distant cousin of the Albert Hall. That, I think, is commendable. There is no nonsense about the delineation of No. 1367—a design by Sir Reginald Blomfield. The plan and two sections of India House, Aldwych, by Sir Herbert Baker (No. 1347) are pleasantly presented. The same architect exhibits in the same way his Christian Science Church in Westminster (No. 1356). Perhaps No. 1370—Mr. M. Maufe's Junior Combination room at Trinity College, Cambridge, with its photograph and good detail drawing, is the nearest to the ideal exhibit. Mr. T. O. Foster's house at Rangoon with its pretty green sky (No. 1376) would have been so much more interesting with a plan attached. One hoped for something exciting from Sir Edwin Lutyens, and he appears in No. 1281. This shows—to some extent—the new Gamage building in Oxford Street. Some other drawings might be mentioned—if that is not invidious—as No. 1311, Mr. James M. Wilson's Post Office

entrance in Iraq: Mr. Austin's house at Swanage (No. 1345); Mr. Oliver Hill's delightful rough sketch for houses in North Street, Westminster (No. 1371); Mr. Hepworth's two houses (No. 1454); and it is interesting to see the old school of the picturesque outline so well represented by Mr. Guy Dawber's House in Hertfordshire (No. 1414). F.R.I.B.A.

### EXHIBITION OF STUDENTS' WORK AT THE CENTRAL SCHOOL OF ARTS AND CRAFTS.

By PROFESSOR A. E. RICHARDSON [F.]

The Exhibition now open at the Central School is not only representative of the teaching of craftsmanship but all the sections maintain a high standard. The specimens of work range from pottery and furniture to textiles and costumes. Other sections deal with woodcuts, engravings, etchings and water-colour, bookbinding and silver work. The bulk of the work is produced by young students, and for this reason praise is due to the organisation of the technical training. All interested in the maintenance of craftsmanship and honest adventure in art should visit the exhibition and encourage the young artists by purchasing some of the exhibits.

Not the least among the activities of the School is the study of architecture and construction. The Central School attracts the majority of its students from among those who work in offices during the day. These young people have perforce to study in the evenings, and they are indeed fortunate in being able to obtain the advice of practising architects whose skill is well known.

The architectural work this year is chiefly remarkable for thoroughness. In other words, the drawings illustrate a special programme which formed the chief of the year's work. Incidentally, the nature of the programme recalls the interesting experiment made by Professor Hubert Worthington, of the Royal College of Art, some years ago, when the subject of a complete village worked out in sections by individual students was tackled. It is evident that the present idea is to devise a unified assemblage of buildings and at the same time to allow freedom. In the present instance Mr. Caulfield decided that the village of Castle Combe in Wiltshire should provide the model. The selection was made not from the types of old buildings, but to provide data for situation and land contours. This interesting point of view gave the students the necessary resistance without which architectural designs are apt to be in the air.

A plan was prepared by the staff showing the existing sites, and the students were instructed to select certain buildings to develop. A number of the students visited Castle Combe in order to study the local conditions and to gain personal knowledge of the locale. As events worked out three students prepared designs for the village church, and produced very creditable studies.

Miss Majorie Duffell designed the Roman Catholic Chapel and the Priests' House. This student's drawings can be said to be up to professional standard. Mr. D. G. Martin and Mr. A. Wilkinson each designed a war



memorial, their work being reminiscent of the covered market crosses of the west country. Among the other designs to be commended are the following :—

An institute, by Mr. C. K. Slade ; school, by Mr. A. Wilkinson ; manor house, by Mr. J. Harman and Mr. D. W. Harrington ; dower house, by Mr. J. W. G. Smith ; rectory, by Mr. H. W. Hawkes, and Mr. G. C. Fardell ; Castle Inn, by Mr. J. W. G. Smith, Mr. J. F. Learner, and Mr. D. E. Nye ; and The White Hart Inn, by Mr. C. Tarling.

Another interesting design is that for the Tea Room, Garage and Petrol Station by Mr. Wilkinson. There are numerous other drawings for lesser buildings, such as cottages, the smithy and village shops.

Mr. Caulfield and his colleagues, Mr. E. Frazer Tomlins, Mr. F. H. Mansford and Mr. Ewart, have adopted the right methods, and by encouraging respect for constructional architecture they are keeping their students within the range of sanity. The present exhibition proves that a knowledge of building technique can be acquired without forcing the students to imitate German factories. The drawings are beautifully presented and nearly all the buildings would look well if carried into being. The exhibition in itself is a tribute to the ideals of the Central School, and the principles pursued might be followed with advantage in larger schools where teaching is unlimited, in time, scope and blind imitation of novelty. The liberal educational policy of the Royal Institute does not discourage the open door in teaching circles where students are not fully endowed with means to study. Mr. Caulfield aims at a high standard, and the work of his school is gaining recognition.

## Reviews

### NOTES ON SOME RECENT FOREIGN PERIODICALS.

By GRAHAME B. TURBS [A.].

THE design for the Temple Emanu-El on Fifth Avenue, which has the place of honour in the February *Architectural Forum*, raised an interesting point of style. This building is a large synagogue and its appurtenances, and the architects, Messrs. Kohn, Butler and Stein, with Goodhue Associates as consultants, were faced with the fact that there is no national Jewish manner of building, as in the past their synagogues have been made in the style of the period and country in which they were built. The designers, therefore, felt free to choose the style they thought most appropriate, and eventually decided upon the very early Romanesque of Syria and the East. The Temple, which is of basilican type, seats 2,500 ; adjoining is a chapel and beneath them or adjoining are a banquetting hall for 1,000, an assembly hall, Sunday-school rooms and rooms for the Rabbis, a library for 25,000 volumes and offices for the Hebrew Union College. The exterior is carefully studied and has some good detail. Inside the ornament is concentrated on the sanctuary ; the main walls are plain, the decorative scheme having been determined by the acoustic tile with which the walls are faced. These are of brown shaded from light at the bottom to dark at the top. Narrow gold tiles

are used between to emphasise the vertical effect. From the photographs the interior does not seem to be as successful as the outside. Other buildings represented in the magazine include the Governor Clinton Hotel, which is on 31 floors, and a Woman's Residential Club at 18, Gramercy Park. The graph of new building construction shows that there has been a marked falling off in new work in November and December, and it is thought that more time will be required than was at first expected before the building industry recovers from the financial crash of the autumn. This number has an article on the grisaille glass windows of the American firm of Paris and Wiley.

"Tempera Painting of To-day" is the title of an article in *The Architect* (New York) (February) by Frank Schwarz, illustrated by examples of church painting that he has done in this medium after studying old technical treatises and the actual work of the old masters in Italy. The largest building in the magazine is the Baltimore Trust Building, which is a skyscraper of rather mediæval flavour externally whose vertical piers are terminated by boldly sculptured birds. The Banking Hall is a huge room with an elaborate mosaic floor.

In *Pencil Points* the seventh article on the Geometry of Drafting shows, by means of enlarged drawings, how errors accumulate owing to inaccurate drawing. It gives reproductions of Eric Gugler and Roger Bailey's winning design for the Chicago War Memorial. This is to be placed on the lake side and is a fine imaginative scheme. It has a long, rough-hewn, sarcophagus-like stone surrounded by huge square piers forming colonnades.

In *California Arts and Architecture* for February the architectural feature is the Richfield Building, which was built to conform to the Los Angeles regulations which restrict the height of buildings to 150 feet. This is built of black terra-cotta and has a central tower to take the water-tanks and lift-mechanism, surmounted by a horrid Eiffel Tower-like structure on which are advertising lights. This spoils what would be rather a fine building.

In the March number of the *American Architect* reproductions are given of the awards to competitors in the Architectural League Exhibition, for various classes of architecture ; landscape gardening, sculpture, decorative painting and architectural rendering. Beside these there is a description of the new Beaux-Arts Building, New York, which is remarkable both on its own account and because it was not only designed and promoted by architects, but financed on a novel plan. It arose from the necessity of finding better accommodation for the Beaux-Arts Institute of Design. Several prominent architects were asked to look for a suitable site upon which to rebuild, and after much searching they recommended that a large site at Forty-fifth Street, in what had been a slum area, be bought and that a group of studio-flats be erected around the Institute to form a new artistic colony. Their idea was adopted and carried through at the cost of five million dollars by Raymond Hood and Kenneth Murrison. The residential parts consist of two blocks of one-roomed flats, some of which were arranged, by ingenious planning, to extend in height through a story-and-a-half ; they measure 36 feet by 15 feet by 13 feet 6 inches high. The smaller rooms were 22 feet by 13 feet and all have a bathroom and a pantry



fitted with refrigerator, kitchen-cabinet and sink. Ventilated bed-cupboards are provided into which the beds can be folded in the daytime. A proposal to incorporate definite regulations in the Pennsylvania building code as to the relationship between the rise and tread of stairs has caused this paper, with others, to publish definite information about actual examples. From those they give the following generalisations for comfortable "going": risers 6-6½ inches, "run" 11-13 inches, nosing not above 1½ inches, product of rise and "run" 69-876, angle 23°-31½°.

The *Journal of the Royal Architectural Institute of Canada* for February tells us about the interesting new Medical Arts Building at Toronto by Marani and Lawson, which is intended for the use of doctors. There are 204 suites, and common X-ray and dark-rooms and so on are provided. On the ground floor are a Bank and some shops. The plan is L-shaped and the detailing is strongly Georgian in flavour. The Autumn number of *L'Architecture Vivante* is given up entirely to one house, designed by Eileen Gray and Jean Badovici (the editor) and built on the slopes overlooking the sea at Cap Martin. It seems to fit into the landscape remarkably well in spite of its ultra-mechanical form. The photographs of the interior, the specially made metal furniture and the elaborate fittings, show it to be a house of exceptional interest. The working drawings, given in the text, are however very difficult to follow.

In the *Gazette des Beaux Arts* for March Salomon Reinach reports upon the discoveries of the year relating to ancient art. The most important pieces are a colossal Zeus found in the water at the Artemision; an Athlete by Myron, a statue of a crouching woman and the very beautiful *Dea di Butrinto* which was given by the King of Albania to Signor Mussolini. Alexandre Anissimov contributes a fully illustrated paper on Russian painting in the fourteenth century, with special reference to one Theophanes the Greek, who exercised profound influence on Russian art, which had by that time completely assimilated the Byzantine tradition into its national style.

*L'Architecture* for 15 February gives three war memorials by Paul Cret put up in France to commemorate the fallen of the 28th, 79th and 80th Divisions of the U.S. Army. These divisions were either partly or wholly recruited in Pennsylvania, and the monuments have been erected by that State. The most important and impressive is at Varennes-en-Argonne, and stands on a tree-covered hill overlooking the plain where the fighting took place. It consists of two colonnades enclosing a square, at one end of which is a long, low altar supporting a stone tripod. The second is at Fismes and takes the form of a bridge with two circular fluted pylons supporting figures. The third is at Nantillois and is a flat wall with sculpture reliefs and inscription.

In the March and number of *La Construction Moderne* there is a large villa and garden at St. Cloud by M. L. Sue, A.D.P.L.G. The house is curiously planned with a few magnificent rooms *en suite*; but the access to smaller rooms and the lighting of service arrangements seem to have received less attention than might have been expected from a house of this character. This number gives particulars of a good ferro-concrete garage

in Rue Rennequin, Paris. This takes 300 cars and the upper floors are reached by a straight ramp of 13° pitch and 3 metres wide. The number for 23 February is given to Herr Höger's work and the reproductions include flats for the Hamburg aerodrome; offices for the *Hanover Monitor*, which has strongly marked vertical piers and is roofed by a huge dome; and a fine school at Hamburg Eppendorf.

Coming to the German magazines, *Wasmuths Monatshefte* for March has a very good article on the new Market Halls at Leipzig and Reims. The former is roofed by two immense ferro-concrete domes 70'4 metres in diameter. The original model, which is shown, is for a larger scheme having three domes, which one hopes may be carried out eventually. The pictures taken of the interior of the hall while the scaffolding was still in place are very impressive and give an idea of the huge size of the building. The market hall at Reims is smaller and is also made of ferro-concrete. In this case the hall is spanned by parabolic arches 38'26 metres wide. The light is obtained by inserting glazing between the arches at intervals instead of filling them in solid, and these windows extend the whole width of the span. This number, among many buildings of interest, gives drawings and photographs of a new Sound Film studio at Berlin designed by Otto Kohtz for the Universum Company of Berlin. There are four studios radiating from a central court and surrounded by one storey of dressing-rooms and with sound-locks at each entrance to prevent outside noises from entering the studios. Externally the effect of the perfectly plain unrelieved brick walls is impressive. In the same number is a translation of an article on Glass by Frank Lloyd Wright.

The whole of the March number of *Innen Dekoration* is given to illustrations of interior decoration, houses decorated and furnished from the designs of Fritz Gross of Vienna. His work is characterised by the use of plain surfaces of plaster or of plywood with very few mouldings, but he makes decorative use of built-in bookcases, writing desks and bedroom furniture. *Die Baugilde* for January, gives a good collection of engineering structures including the new long span suspension bridge at Cologne-Mulheim, and ferro-concrete bridges of various types and a good electricity mast. The *Bygge Kunst* for February gives the designs submitted in a competition for a Boat Club House and in the Spanish *Arquitectura* the competition designs for an Airport outside Madrid are illustrated.

#### NOTES BY MEMBERS OF THE SCIENCE STANDING COMMITTEE.

##### A STUDY IN HEATING AND VENTILATION IN SCHOOLS.

By H. M. Vernon and T. Bedford (assisted by C. G. Warner). *Industrial Health Research Board. Report No. 58.* (62 pp. H.M. Stationery Office, 2s. 6d. net.)

This work constitutes an extension of a previous one on *A Physiological Study of Ventilation and Heating in Certain Factories*, by the same authors. (Report No. 35.) Whereas the earlier work deals with the more general forms of heating, however, the present pamphlet gives the results of investigations of two particular methods of heating—"Under-floor Heating" and "Panel Heating." For the sake of convenience, the investigations of the two



systems named were carried out in their application to the heating of schools, though, as the authors remark, "much of the evidence obtained can readily be applied to industry."

With reference to under-floor heating, the example instanced is the method employed by Mr. G. H. Widdows, architect to the Derbyshire County Council. A hollow floor is formed by supporting  $\frac{1}{2}$ -inch concrete slabs some seven inches above the surface concrete, the space between providing accommodation for a system of 2-inch diameter low-pressure hot water pipes.

The form of panel heating described consists of radiation from cast iron panels fixed in the ceiling and heated by means of hot water pipes.

It is found that, while the more common systems of heating and ventilation result in a temperature distribution having a higher temperature at the head-level than at the floor (sometimes by as much as 8 deg. Fahr.), the low temperature radiation from the panels results in a more even distribution, and the under-floor heating has the effect of a distribution with highest temperature at the floor.

The results of tests go to prove that both physical comfort and personal efficiency are increased by the distribution of temperature attendant upon the two methods described.

Incidentally, the course of their experiments has led the authors to offer some important criticisms on some of the commonly accepted ideas regarding open-air schools with little or no artificial heating. It has been found that the efficiency of the children in such schools is reduced, in some cases by as much as 50 per cent., and it is suggested that the open-air system should be adopted in a less drastic form. It is found that, in order to secure full efficiency, the temperature should not fall much below 60 deg. Fahr., and never below 55 deg. It is pointed out that the requisite temperature could be maintained without reduction of air current by the use of the under-floor or the panel system of heating. ALFRED H. BARNES [L].

## Correspondence

### EASEMENTS OF LIGHT.

9 Gray's Inn Square,  
London, W.C.1.  
14 June 1930.

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—As the case quoted in the report in your issue of 26 April and mentioned in my letter was given as *Sturges v. Bridgman*; and as the book which Mr. Swarbrick states that I ought to have consulted before commenting on your report is not even mentioned in it, perhaps I may be forgiven for not having guessed that the reference really was the case of *Sturges v. Bridgman*.

At the time of writing, the law libraries are closed for the Whitsun recess; but I believe that both *Sturges v. Bridgman* and *Rushmer v. Polau and Alfieri* were not light cases at all, but actions for nuisance due to noise and vibration. In noise cases it is of course essential to take into account the locality and the other noises prevalent in it. That which might be intolerable in a quiet residential

suburb might well pass almost unnoticed in a busy manufacturing town.

There is little need to wait higher authority for the *ad hoc* decision in *Horton v. Beattie* to the effect that locality cannot affect the measure of legal nuisance due merely to insufficiency of light for ordinary purposes.

That judgment has already been so frequently considered, approved and applied in the Courts (with presumably full knowledge of the earlier cases of *Sturges v. Bridgman*, *Rushmer v. Polau* and *Alfieri, Kine v. Jolly* and many others) that the prospect of it ever being reversed in the Court of Appeal or the House of Lords appears to be too remote for serious consideration.

I am no lawyer, but I believe that any *ad hoc* decision takes precedence of mere *obiter dicta* in earlier cases.

It is therefore dangerous for architects to neglect this clear decision, reported for their guidance, merely because there are two higher Courts which might conceivably reverse it.

The suggestion that the Courts will not protect the rights of these who, being poor, are compelled to work or to live in overbuilt localities, where adequate light is scarce, because "work people are no doubt accustomed to submit to a greater amount of nuisance" is certainly novel.

It would be interesting to hear the comments of lawyers upon it; but it is to be hoped that no architect will, with this object, adduce it in the Courts.—Yours faithfully,

PERCY J. WALDRAM [L].

### LONDON BUILDING ACTS COMMITTEE.

The following Building Acts Regulations of the London County Council have been brought to the notice of the London Building Acts Committee of the Royal Institute and are now published for the information of members.

#### REGULATION 119.

*Shelters over public way.*—Applications for consent under the London Building Act, 1894, to the erection of shelters over the public way shall be considered only in the case of a theatre, music hall, cinematograph hall, or public hall with seating accommodation for at least 300 persons, or a restaurant or hotel with seating or sleeping accommodation for at least 200 persons, or a railway station, and provided that the width of the street in which the shelter is to be erected and the construction and position of the shelter are such as may be prescribed, and that the design of the shelter is to the satisfaction of the Council; and any consent which may be granted shall be subject to such other conditions as may be imposed.

#### REGULATIONS 120 AND 121.

*New streets for foot traffic only. Formation of streets—movable posts.*—Whenever plans of new streets to be laid out for foot traffic only are sanctioned, a condition shall be attached binding the applicant to pave the street over the entire surface, and by posts, bars, or otherwise, to prevent such street from being used for carriage traffic.

In all cases in which posts, etc., are required to be placed at the ends of streets, such posts, etc., shall be made movable so as to admit of the passage of fire escapes.

#### REGULATION 126.

*Appointment of district surveyors—conditions governing candidature.*—(a) No person shall be accepted as a candidate for the appointment of district surveyor unless he shall have



attained 28 years of age and be under 50 years of age, and every such candidate shall deliver with his application satisfactory evidence of his age.

*Conditions of appointment.*—(b) Every candidate shall be required to sign a declaration and deliver it with his application, that he becomes a candidate, and will accept the appointment, if he should be appointed, on the following understanding:—

(i) That he will personally discharge the duties of his office subject to section 142 of the London Building Act, 1894.

(ii) That he will give his whole time to the duties of his office.

(iii) That he will not during his continuance in office (except in the discharge of the duties thereof) carry on business as an architect, surveyor or builder, or directly or indirectly, as a partner or otherwise, be interested in such business.

(iv) That he will make no claim for compensation in case a diminution of his income shall at any time hereafter arise, and that the Council shall not be liable to compensate him for any diminution of income which may be caused by any statutory alteration of the fees payable to district surveyors in respect of alterations and additions to buildings.

(v) That he will keep his district office open from Monday to Friday (both inclusive) between the hours of 9.30 a.m. and 5 p.m., and on Saturday from 9.30 a.m. until 1 p.m., and give his personal attendance there daily from 9.30 a.m. to 10.30 a.m.

(vi) That he will retire on attaining the age of 65 years.

*Declaration.*—(c) The declaration of the appointed candidate shall, on his appointment, be entered on the minutes of the Building Acts Committee.

*Medical examination.*—(d) Every appointment of district surveyor shall be subject to the person appointed passing satisfactorily a medical examination by the Council's medical examiner.

#### REGULATION 127.

*District Surveyors—rearrangement of districts.*—The districts allotted to district surveyors shall be rearranged as opportunity may occur, so that the average of the fees received may in no case amount to less than £500 a year.

### STANDARDS OF ADEQUACY OF DAYLIGHT ILLUMINATION AND REASONABLE PENETRATION.

Members are referred to the memorandum and diagram which were published in the JOURNAL of 12 April 1930 (page 382), as to which criticisms were invited. As it is desirable that a report should be made to the Daylight Committee of the International Commission on Illumination at an early date, it is proposed, unless any comments are forthcoming within a week of the publication of this JOURNAL, to report to the Daylight Committee that no adverse criticisms of the diagram as a reasonable criterion of modern fenestration in town buildings have been received.

#### PROFESSOR RAGNAR OSTBERG.

Professor Ragnar Ostberg [H.C.M.] has been elected an Honorary Foreign Academician.

#### COLONEL JOHN BROWN.

Colonel John Brown [F.] has been elected Chairman of the British Legion.

### ST. PAUL'S CATHEDRAL.

In connection with the reopening of St. Paul's Cathedral on 25 June, after 17 years of restoration work, the Council of the R.I.B.A. have, with the kind assistance of the Cathedral authorities, arranged in their galleries at 9 Conduit Street an exhibition of models, masonry specimens, drawings and photographs, to illustrate the work of restoration. This exhibition will be open (free) to the general public between the hours of 10 a.m. and 8 p.m. (Saturday, 5 p.m.), from Monday, 23 June, to Saturday, 28 June (inclusive).

The exhibition will also be open at a general meeting on Monday, 23 June, at 8.30 p.m., when an illustrated lecture on the subject will be delivered by Captain C. Stanley Peach, F.R.I.B.A., and Mr. W. Godfrey Allen, F.R.I.B.A.

### ROME SCHOLARSHIP IN ARCHITECTURE.

The Faculty of Architecture of the British School at Rome have awarded the Rome Scholarship in Architecture for 1930 to Mr. William Graham Holford, of South Africa, at present a fifth-year student of the Liverpool School of Architecture, University of Liverpool.

The Rome Scholarship in Architecture is now provided for by an annual grant made to the British School at Rome by the Council of the Royal Institute of British Architects. It is of the value of £250 per annum, and is ordinarily tenable for two years at the British School at Rome.

An exhibition of the competition designs will be held in the Galleries of the Royal Institute of British Architects, 9 Conduit Street, W.1, from 30 June to 5 July inclusive, between the hours of 10 a.m. and 7 p.m. (Saturday, 10 a.m. to 2 p.m.).

Mr. A. J. Davis, F.R.I.B.A., a member of the Faculty of Architecture, will deliver a criticism on the Rome designs to members of architectural Schools on Monday, 30 June, at 2.30 p.m.

### EXHIBITION OF "PUNCH" DRAWINGS.

The proprietors of *Punch* propose holding an exhibition of original drawings by John Leeds, Charles Keene, Sir John Tenniel and George du Maurier at the *Punch* Office, Bouverie Street, E.C.4, on Monday, 16 June, from 11 to 5, to 25 July (excepting Thursday, 3 July), but not Saturdays. The proprietors will be happy to send invitation cards for distribution to those who may desire them. As the time is so short, any members of the Institute who come on Monday will be gladly admitted on presentation of their personal cards.

### MEMORIAL TO THE LATE SIR EBENEZER HOWARD.

The memorial to Sir Ebenezer Howard will be unveiled in the Howardsgate Gardens, Welwyn Garden City, on Sunday, 22 June 1930, at 3 p.m., by the Rt. Hon. the Earl of Lytton, P.C., G.C.S.I., G.C.I.E., when the Most Hon. the Marquess of Salisbury, K.G., P.C., G.C.V.O., C.B., T.D., will preside. It will be recalled that the R.I.B.A. made a donation towards the funds of this memorial in March of last year.



# Schools of Architecture

## SIXTH SERIES

### I.—The School of Architecture at the Government School of Art, Bombay

BY PROFESSOR CLAUDE BATLEY [A].

This school constitutes the only serious effort made in India to train the architects who are to practise over an area about fifteen times as extensive, and with a population at least seven times as large, as that of the British Isles, and having an architectural tradition not only far older than that of Europe, but pre-eminently fitted to her particular needs. It may therefore not be without interest to deal with our particular problems, and the history of our efforts to meet them, somewhat more fully than would be justified were they identical with those which the other recognised Schools of Architecture have to face.

Evidence of the highest architectural aptitude exists in the Buddhist work from Asoka's reign in the third century B.C. The tradition handed down from that time persisted through the great periods of India's later Hindu kingdoms and endowed the architecture of the subsequent Mohammedan conquerors from the thirteenth century onwards with a character that made it entirely distinct from that of the architecture of their homelands in Afghanistan and Persia.

It was not until the break up of the Moghul empire under Aurangzeb's fanatic despotism that, in consequence of his prejudice against the Hindu craftsmen, the great building tradition of India began to fall to pieces, although it has by no means entirely disappeared even to-day, except in the larger cities. The mediævalism of the individual craftsman has been swamped by the Indian Government's particular brand of organisation and efficiency which has imposed upon India not only its "orders" and "styles" but, worse, its standard specifications imposing "stop chamfers," "rustications," "Marseilles tiles," "leaded lights," and a thousand and one other foibles as incongruous in India as the "sock suspenders" that the young Indian of fashion displays so ostentatiously below his traditional nether garments.

To-day, the practitioners of architecture in India may be roughly divided into three classes:—

(a) The European-trained architects, both Indian and European, mostly members of the R.I.B.A., practising in the larger cities privately, or as official architects. This class numbers, perhaps, a hundred individuals.

(b) Practitioners, also mostly confined to the larger towns, who call themselves architects, and imagine they are working on lines similar to those prevailing in Europe. With the exception of some fifty who have passed successfully through the Bombay School and hold the Government Diploma in Architecture, the bulk of them have received no architectural training in the true sense of the term and depend on the knowledge gained in the engineering colleges, whose primary function is to supply men for the Indian public works department in its multifarious branches such as irrigation, roads, sanitation, hydraulics, electricity, and civil engineering.

Of this class those practising privately as architects may number some 250, while probably at least an equal number are engaged in the Government departments most intimately concerned with the erection and maintenance of buildings.

(c) The vast army of Indian master-builder-craftsmen, or *mistris*, who are responsible for the bulk of modern building work throughout India, except in the largest cities (where Europeanised qualifications in civil engineering are insisted upon by the municipal authorities). These men work on the old traditional lines, practically living on their works, and generally carrying them out in the closest co-operation with the building owner, who generally purchases his own materials and employs his labour direct.

The work produced naturally varies in merit, but it is, generally speaking, far more interesting than any of the other work carried out in India, not only because those employed thereon are in more intimate touch with their clients' requirements and with the traditionally trained craftsmen, but also because they are free from the contract system which is still foreign to their somewhat mediæval outlook, and which, as it prevails in India to-day, is generally productive of scamping, both in workmanship and material, as well as of much corruption in the way of secret commissions and illicit gratifications at the expense of the employer.

The serious weakness of practitioners of this class is the lack of any knowledge that would enable them to deal with the larger problems of modern planning, while their acquaintance with the world progress in the production and marketing of building materials, and of up-to-date hygiene and equipment relating to buildings is so slight as to be only dangerous.

Those men are therefore never likely to be entrusted with important public works such as the hospitals, libraries, municipal and Government buildings of the India of the immediate future; they will, however, be employed for generations to come on the smaller domestic buildings, and the Hindu temples and Mohammedan mosques, which are being built to-day in almost, if not quite, the same spirit as of old.

The object, therefore, of the School is to provide such a training as will equip, at least some of those who in the ordinary course of their training would be entering the latter two groups, with that particular training which neither the engineering colleges nor the craftsman-apprenticeship system can supply, and so fit them to practise on an equality with those of our first group. Many will no doubt be unable to rise to such a standard as will fit them to practise on their own account, but these will find a useful sphere awaiting them as assistants to their more successful confrères.





MEASURED DRAWING. By V. N. Chemburkar  
Bombay School of Art: First Year

With this somewhat lengthy introduction to our problem I may perhaps be permitted to sketch the history of the School in Bombay, first in its gradual realisation of the problem, and then in its progress towards a solution.

In 1853 a wealthy Parsee, Sir Jamsetji Jejeebhoy, Bart., offered to contribute a lac of rupees towards the endowment of a School of Art, on condition that the East India Company agreed to erect a suitable building for the purpose.

As an outcome of that offer the first drawing classes were started in 1857.

The directors of the East India Company had engaged the services of a Mr. Terry, a draughtsman and engraver from England, and, on his arrival towards the end of that year he at once organised additional classes in design and engraving, while the Baronet himself lent a vacant house in Abdul Rehman Street in which to accommodate the School.

In 1866 Messrs. Griffiths, Higgins and Lockwood Kipling (the father of Mr. Rudyard Kipling, who was born in Bombay) were brought out to conduct ateliers in decorative painting, ironwork, and modelling respectively. Under Mr. Lockwood Kipling's direction the students prepared models for the carving on the University buildings, the somewhat famous terminus of the Great Indian Peninsular Railway, and several other important

public buildings in the Gothic Revival manner which were erected in Bombay about this time under the influence of such men as Scott, Stevens, and Burges.

About the year 1880 the Government of Bombay decided to take over entire control of the School and erected the main block of the existing buildings at the cost of some two lacs of rupees, and Mr. Griffiths was appointed as Principal, Mr. Lockwood Kipling having gone to Lahore.

Classes in architecture were then for the first time included in the curriculum: they were, however, only an attempt to provide the students of the School with such a general knowledge of the art as should aid them in their more advanced studies in drawing, painting, and modelling.

Mr. Griffiths retired in 1895, and was succeeded by Mr. Greenwood, who had come out to India in 1891 to organise the Government Drawing Examinations for pupils in the High Schools of the Bombay Presidency, and to carry on the regular inspection of the work done in these schools. Mr. Greenwood retired in 1896 on account of ill-health, and his place as Principal was taken



INDIAN COMPOSITION. By B. D. Mhatre  
Bombay School of Art: Third Year



by Mr. Cecil Burns, to whom the present School of Architecture owes its inception.

Mr. Cecil Burns retired in 1918, and was succeeded by the present Principal, Mr. W. E. Gladstone Solomon.

Dealing now with the architectural school only, we find that it was about 1900 that the classes in architecture, under the advice of the first Consulting Architect, for the

in order, as he expressed it, "to afford instruction to those students intending to enter architects' and engineers' offices as assistants," the classes being held from seven to nine in the mornings. The fees were then only about half-a-crown a month, and Mr. Wittet was assisted by only one whole-time teacher.

In 1911 the architectural section of the school was



TIME STUDY: A MAHARAJAH'S MUSIC GARDEN IN THE HILLS. By E. V. Vidwans  
Bombay School of Art: Fifth Year

first time professed to concern themselves with the training of the students as office draughtsmen.

In 1907, the Government recognised this training by granting to candidates who passed the preliminary and elementary examinations in architecture at the School what was called a "draughtman's certificate," the possessor of which became eligible for employment in the lower grade posts in the drawing offices of the public works department.

In 1908, the late Mr. George Wittet, F.R.I.B.A., took charge of these classes and instituted a four years' course

further developed by the appointment of three visiting lecturers, and the fees were raised to their present level, which for the first four years' course average a little over two guineas for the session of two terms. The fee for the fifth year, instituted later on, is about seven guineas.

The Architectural School became so popular that Mr. Wittet found its organisation more than he could manage in addition to his official duties as consulting architect, and in 1913 Mr. Robert W. Cable was appointed from the staff of the Architectural Association School in London to take charge. He at once urged the Govern-



ment to bring the course of training more into line with that afforded by the best schools of architecture in Europe, and as an initial step to revise the morning school course and extend it to five years. At the same time a comprehensive scheme was drawn up in connection with the School of Art for a series of public examinations in all branches of art to be conducted by Government in place of the examinations hitherto conducted by the school, and the new course in the School of Architecture was designed so that the first and second years prepared students for the Government elementary examination, the third year for the intermediate, the fourth year for the advanced, and the fifth year for the Government Diploma in Architecture.

The War intervened before these innovations could be carried through fully, but on Professor Cable's return from war service the fifth year was added, and the school became a recognised school for exemption from the R.I.B.A. intermediate examination. A further scheme was drawn up for the development of architectural education in India, aiming at bringing the school up to such a standard as could be accepted by the Board of Architectural Education in London for the exemption of students from the R.I.B.A. Final Examination, so as to save them the formidable adventure and onerous expense of a long visit to England across the "Black water" in order to obtain the coveted qualification for Associateship of the Institute, but, although Government have given approval in principle, no further development has at present been possible owing to the general policy of retrenchment rather than of extension which circumstances have forced Government to follow.

The municipal authorities, however, accepted the Government diploma in architecture as a qualification entitling holders with three years' practical experience in an architect's or engineer's office to be granted the licence necessary to practise as architects or civil engineers

in Bombay, a privilege that students trained as architects then for the first time shared with Licentiates and Bachelors of Engineering from the Government engineering colleges.

The first qualifying examination for the diploma was held in 1923, and since then some forty students have gained the diploma; most of these men have taken advantage of the privilege of enrolling themselves as students R.I.B.A., and several have gone to England and successfully passed the R.I.B.A. Final Examination there, after a creditably short period in one or other of the London schools.

In 1923 Professor Cable took up the post of architect to the Bombay Improvement Trust, and Mr. Woods Hill, the then consulting architect, took over, but resigned after less than a year. Since that time I have been responsible for the school, at the same time taking my share with my partners in the demands of a somewhat extensive practice.

Our time table, which is given below, hardly indicates how different the curriculum is from that of most of the other recognised schools; actually, the Indian traditional work takes up a great deal of our attention, colouring all our teaching, while almost all our design work is based on it.

The teaching is given by myself and eleven visiting lecturers, assisted by twelve assistant teachers. The visiting lecturers are all practising in the subjects they teach, and the assistant teachers are all either diploma holders or specialists in their own subjects.

The vacation work includes model making, measured drawings, working drawings, and essay work.

The school now numbers about 130 students. Not the least of our difficulties is the fact that English, in which the teaching is given, is the native tongue of very few of the students, and a language that only a small minority use in their homes. The languages and dialects represented in our school must number well over a score.

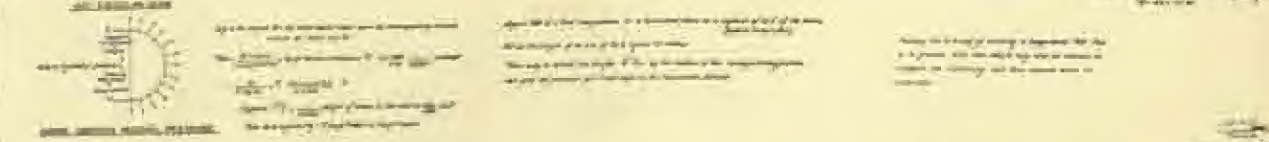
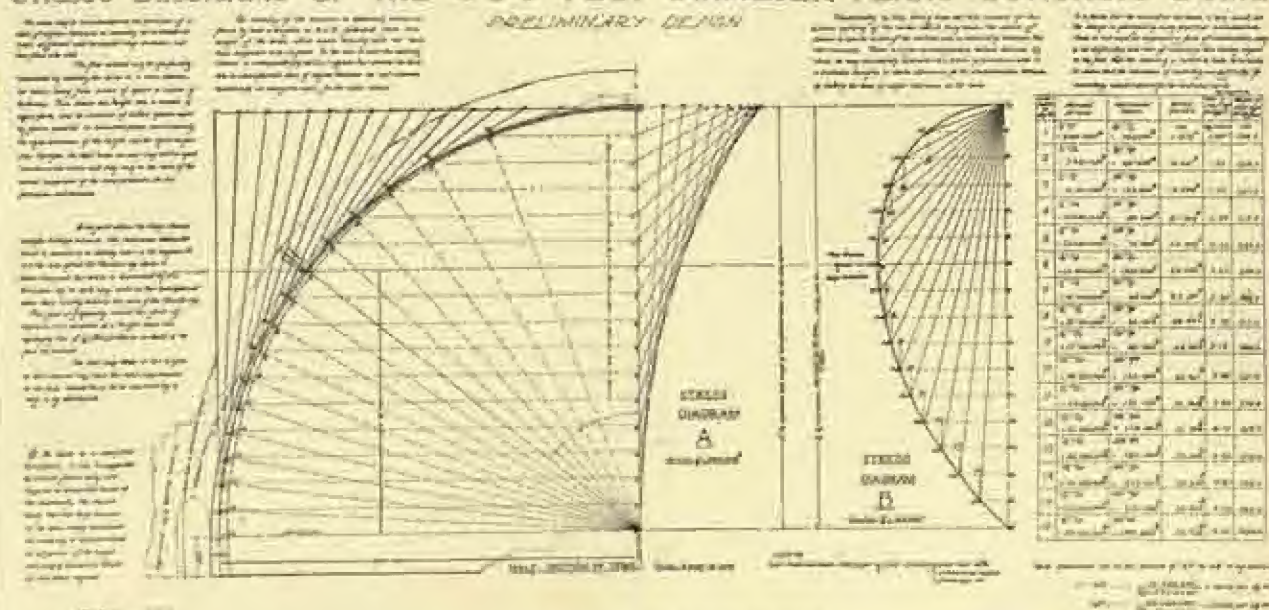
	First Year.	Second Year.	Third Year.	Fourth Year.	Fifth Year.
Sunday and Public Holidays	Study Classes supervised by a Visiting Lecturer with two Assistants.				
Monday ..	Lettering and Ornament.	Sciography.	Theoretical Construction.	History (Renaissance and Moghul).	Working Details.
Tuesday ...	Materials.	Practical Construction.	Specifications.	Analytical Design.	Principles of Architecture.
Wednesday ..	Elements of Architecture.	Perspective.	Practical Construction.	Stresses and Strains.	Design.
Thursday ..	Geometry.	Practical Construction.	History (Mediaeval Indian and European).	Analytical Design.	Hygiene and Sanitation.
Friday ..	Applied Mechanics.	History (Greek and Roman periods).	Practical Construction.	Quantities.	Design.
Saturday ..	Freehand and Modelling.	Surveying and Levelling.	Application of the Orders and Indian Architecture to Design.	Analytical Design.	Heating, Lighting and Ventilation.





## STRESS DIAGRAMS OF THE 200 FEET DIAMETER FERRO CONCRETE DOME

POPLINNARY DEATH



DESIGN FOR A TOMB OF A GREAT INDIAN PATRIOT TO BE ERECTED ON THE BOMBAY MAIDAN  
(Subject was set by Sir Edwin Lutyens when in Bombay in 1928). With Reinforced Concrete Stress Diagram for the Dome  
By J. K. Metha. Bombay School of Art: Fifth Year.



Among our students are Brahmin and non-Brahmin Hindus, Jains, Zoroastrians, Mohamedans, Buddhists, and Jews, as well as Indian, Anglo-Indian and European Christians.

The students joining our school come mostly from our Bombay Presidency, which alone contains some 27,000,000 inhabitants, but as the school is the only one in India, we get students from places as far away as Delhi, Calcutta, Madras, and also from Burmah and Ceylon. This alone precludes the use of any one Indian language. English is the official language of Government and of the High Courts, and is, therefore, essential for a man practising architecture in any modern sense if he is to take his place on an equality with the medical, legal, and other learned professions, while the fact that at present there are practically no text-books on architectural or allied subjects in any Indian vernacular, is an additional reason for its adoption.

Perhaps, later on, in particular districts, schools of architecture may spring up where conditions would make it possible to teach at least the elementary principles of architecture and design in the vernaculars, and from such schools the most promising of the students might then be drafted to our central school, which is the most likely to advance its standard; indeed, such a school already exists at Baroda.

The almost universal poverty and low standard of general education is another real difficulty; some of our most promising students in the past have been drawn from the craftsman castes, whose traditional instincts have allowed them to rise despite their financial and educational handicaps. This traditional aptitude is an invaluable foundation on which to build the superstructure of such principles of modern planning and professional organisation as is necessary in this workaday world, even in India, if the son of the old craftsman is to take his proper place in the Indian national life of the near future, and our problem is so to equip him that we do not destroy his inborn perception of the indigenous forms out of which arose the various local architectures suitable to the different climatic conditions of the country and the lives of its inhabitants.

The chief danger of schools, curricula, text books, and examinations, is the introduction of a stereotyped course leading to mechanical reproduction rather than inspiration based on original research and understanding.

The Indian student is probably particularly prone to this danger, and it is necessary continually to modify the course first in one subject and then in another to avoid that result.

The introduction of an Indian revival on the lines of the Gothic revival would be a dangerously easy and temptingly spectacular course to pursue, but the object kept in view both by my predecessors in office and by myself has been rather to bring out the reasoning powers of the individual students, so that they may understand the inner meaning of the old forms and their original functions and may develop and modernise them, and thus gradually produce an architecture, Indian in character, but at the same time as suited to present day India as the old styles were to their own times and environment.

One further matter peculiar to this school which at times tends to make difficult the path of progress may

perhaps be mentioned in conclusion. In the present very delicate stage of Indian Nationalist awakening any control from overseas is naturally looked upon with some jealousy lest it may mean a new form of domination and a curtailment of Indian aspiration towards independence.

We Britishers, who are working out here for our art, know that, at any rate as far as architecture is concerned, India's fears in this regard are groundless. We know that the Royal Institute of British Architects, being as wide as the Empire, has always been very anxious to encourage any signs of the renaissance of the wonderful architectural inheritance which India possesses.

Our confidence, however, is not always shared by our Indian confrères; therefore, in cherishing an association which can be of such inestimable advantage to the architectural profession in India in general and to our School in particular, we would emphasise the need for the continuation of that sympathetic consideration, on the part of both the Council and the Board of Architectural Education, for conditions and aspirations peculiar to India.

## The Library

NOTES BY MEMBERS OF THE LITERATURE COMMITTEE ON  
RECENT PURCHASES

*(These Notes are published without prejudice to a further and more detailed criticism.)*

FRAGMENS E ORNEMENS D'ARCHITECTURE,  
DESSINÉS A ROME D'APRES L'ANTIQUITE.  
Par M. Charles Moreau. 80. Paris [1800].

This folio book of details from antique sources in and near Rome was very beautifully engraved about the year 1800. The author intended it to be a supplement to the work by Disgodetz. They comprise altars, vases, capitols, entablatures and architectural furniture of ornate character, and must have influenced the Imperial style of the period, so those of us interested in that style would do well to examine these plates for further information.

Plate No. 2 is unfortunately missing, but is given in the photographic reproduction, also acquired by the Library, and called "Architectural and Ornamental Details of Ancient Rome," measured and drawn by Charles Moreau, by the Architectural Book Publishing Company of New York.

The original work will be kept for reference, and the copy accessible for the loan collection. A. F. H.

GOTISCHE GLASMALEREI IN ÖSTERREICH BIS  
4150. By Franz Kieslinger (Denkmäler Deutscher Kunst.)  
40. Zürich, Leipzig, Vienna [1925]. [Amalthea]. £5.

This beautifully illustrated volume is a revelation of the fine stained glass possessed by Austria. There are close upon a hundred plates, beside illustrations in the text, and although they purport to be merely examples of Austrian work and in no sense a representative record, they are all remarkable for their high quality. The medallion work of the early thirteenth century at Ardagger is particularly noteworthy. The book contains a very full topographical catalogue of the glass of Austria, and an unusually full list of glass painters from the twelfth to the sixteenth century.

### ERRATA.

In the JOURNAL of 24 May, on page 516, in Professor Richardson's paper on "Architects' Drawings of 1800-1851," we have to apologise for a printer's error in the names of two of Sir Gilbert Scott's churches, St. Mary's Stafford and St. Nicholas, Hamburg.



## Allied Societies

*(The attention of Members of the Allied Societies is particularly called to this page)*

### Notice

#### THE ESSEX, CAMBRIDGE AND HERTFORDSHIRE SOCIETY OF ARCHITECTS.

##### WEST ESSEX CHAPTER.

Will members please note forthcoming events, due notice of which will be sent:—

10 July.—West Essex and Colchester, combined visit to St. Paul's Cathedral, by special invitation, to view the reconstruction work, drawings, models and the museum. Supper afterwards at the Old Chapter House.

19 July.—Proposed visit to Hatfield and Hatfield House.

18 September.—Visit to the Building Trades Exhibition by kind invitation of H. Greville Montgomery, Esq., J.P.

ARTHUR C. RUSSELL, L.R.I.B.A.,  
Hon. Secretary.

### Report

#### ROYAL INCORPORATION OF ARCHITECTS IN SCOTLAND.

##### ANNUAL CONVENTION.

The Royal Incorporation of Architects in Scotland, at their annual convention in Aberdeen on Friday, 6 June, expressed the hope that the Government would authorise a public competition for plans for the public buildings to be erected on the Calton Hill site, Edinburgh.

Mr. T. F. MacLennan, Edinburgh, in moving the resolution, which was unanimously adopted, said the Edinburgh Association and Council had done a great deal of work in the matter, and had interviewed the Prime Minister regarding the site, which was one of the most prominent in the capital. The architects of Scotland were now meeting as an incorporation, and he did not think they should allow the opportunity to pass without taking some action. The Commission appointed had turned down the plans for the buildings to be erected on the site of the old Calton Jail made by the Office of Works as unsatisfactory. The architects should take advantage of the opportunity to rub in the necessity for an open competition for plans.

Mr. P. R. McLaren, Edinburgh, who seconded the resolution, said a protest from the Incorporation regarding the treatment of Scottish architects by the Government in respect of the plans would further their object in getting an open competition.

On the motion of Mr. D. A. Stewart, Perth, the retiring president, Mr. John Watson, Glasgow, was elected president, and installed in office.

Mr. P. H. Thom, Dundee, Mr. Wm. Williamson, Kirkcaldy, and Mr. James Lochhead, Hamilton, were elected representatives to the R.I.B.A. for the next session.

It was decided that the next conference should be held within the area of the Dundee Chapter.

The report of the Council showed that during the year seven Fellows, eighteen Associates, and twenty-two Students had been elected, and the total membership, including affiliates, was now 833.

Mr. W. L. Duncan, Turriff; Mr. D. A. Stewart, Perth;

Mr. John Begg, Edinburgh; and Mr. Andrew Balfour, Glasgow—four members of Allied Societies in Scotland—have been elected to the R.I.B.A. Council.

The Rowand Anderson medal and scholarship of £100 was awarded to Mr. Hugh S. Macdonald, College of Art, Edinburgh; Mr. G. A. Cassells, 1, Park Gardens, Corstonphine, being awarded a certificate and £20. The Rutland prize (certificate and £30) was won by Mr. D. G. Hardie, The Mause, Cockpen, and the Incorporation prize for third year students was awarded to Mr. J. W. Laing, 30 Rutland Square, Edinburgh.

In his presidential address, Mr. Stewart paid a high tribute to the late Sir Robert Lorimer, and expressed gratification at the increase in membership.

##### CONVENTION DINNER.

Those attending the convention and their friends were entertained to dinner by the Aberdeen members of the Corporation in the Palace Hotel, the company numbering over a hundred.

Mr. John Begg, Edinburgh, proposed the "Town and Trade of Aberdeen," and Lord Provost Rust replied.

Mr. John Watson, Glasgow, the new president, said they should do what they could, when new and important buildings were in prospect, to see that an architect of outstanding merit was entrusted with the work.

"The Royal Institute of British Architects" was proposed by Mr. James B. Nicol, Mr. Ian MacAlister, secretary of the Institute, replying. Mr. R. G. Wilson, Aberdeen, gave "The Guests," to which Mr. George G. Nicol replied.

"The Royal Incorporation of Architects in Scotland" was given by Mr. Harry Townsend, director of the Aberdeen Art Gallery, who said that Aberdeen, having a beautiful and durable building material in granite, might be reluctant to accept modern synthetic materials.

## Obituary

#### SIR EDWARD BRABROOK, C.B., F.S.A. (Hon. Assoc.).

We regret to record the recent death of Sir Edward Brabrook at the age of 91. He was perhaps chiefly known as the former Chief Registrar of Friendly Societies, and as an anthropologist and archaeologist, but his interest in architecture was considerable and he was made an Hon. Associate R.I.B.A., having been transferred from the Honorary Membership class of the Society of Architects. He was mentally alert to the last, and his long memory and friendly nature were a delight to his many friends.

#### JAMES H. CRAIGIE (F.).

James Hoey Craigie, whose death occurred on 30 March, 1930, was at the date of his death senior partner in the firm of Clarke and Bell and James H. Craigie, Glasgow, with whom he commenced as chief draughtsman. In his student days he won, in 1893, the Alexander Thomson Memorial Studentship and visited Italy. The principal works with which he was connected (the earliest as chief draughtsman) were the reconstruction of the Sheriff Courthouses, Glasgow, the New Justiciary Buildings, Glasgow, the Grosvenor Restaurant, Kirkinulloch Parish Church, and Messrs. John Anderson's



Royal Polytechnic, Ltd. He served as Captain in the Royal Engineers during the war, holding a commission in the 7th Battalion of the Highland Light Infantry before the commencement, and being transferred to the R.E. shortly after the outbreak of war. He served as a D.O.R.E. in the Stirlingshire District for the first few years and in France during the last year of the war.

G. B.

## W. FINNEGAN [A.].

We regret to report the death of Mr. W. Finnegan, on 18 March, 1930. Mr. Finnegan served three years' articles with Mr. P. J. Newby Vincent, of Southampton, afterwards being employed by him as an assistant, was appointed chief assistant to Messrs. Gordon and Gordon, Finsbury House, Blomfield Street, for one year, which enabled him to gain London experience. He joined the staff of the London County Council in June, 1925, and was allocated to the Mental Hospital branch of the General Section, where he was until ten days before his death which resulted from heart failure following double pneumonia. Mr. Finnegan was elected an Associate in December, 1929.

NOTES FROM THE MINUTES OF THE COUNCIL,  
12 May 1930.

## SIR EDWIN COOPER'S ELECTION TO THE ROYAL ACADEMY.

The cordial congratulations of the Council were conveyed to Sir Edwin Cooper on the well-merited honour conferred on him in his election as an Associate of the Royal Academy.

ADMISSION TO THE COMPETITIONS FOR THE R.I.B.A.  
PRIZES AND STUDENTSHIPS.

On the recommendation of the Board of Architectural Education, it was decided:

- (1) to add a clause to the regulations governing admission to the competition for the Tite Prize to the effect that competitors must at least be registered Probationers R.I.B.A., and,
- (2) to add a clause to the regulations governing entry to the competitions for:—

The Soane Medallion,  
The Victory Scholarship,  
The Owen Jones Studentship,  
The Silver Medal for Essays,  
The Henry Saxon Snell Prize,  
The Alfred Bosson Travelling Studentship,  
The Grissell Prize,  
The Neale Bursary,  
The Hunt Bursary,  
The Godwin and Wimperis Bursary,

to the effect that competitors must at least be elected Students R.I.B.A.

R.I.B.A. STATUTORY EXAMINATION FOR DISTRICT  
SURVEYORS.

The Board reported that Mr. Gordon Welch had passed the Statutory Examination for District Surveyors, May 1930.

THE FEES FOR THE R.I.B.A. STATUTORY EXAMINATION AND  
THE R.I.B.A. EXAMINATION FOR BUILDING SURVEYORS.

Under the existing regulations each candidate for admission to the Examinations must pay a fee of £3 3s. Afterwards on receiving his Certificate of Competency,

should it be granted to him, he must pay a further sum of £3 3s.

On the recommendation of the Board it was decided to abolish the fee of £3 3s. in connection with the issue of the Certificate of Competency, and that the Examination fee of £3 3s. should in future include the Examination and the issue of the Certificate of Competency.

DEPUTY HON. SECRETARY R.I.B.A. FOR WESTERN  
AUSTRALIA.

Mr. A. R. L. Wright [L.] was appointed as Deputy Hon. Secretary R.I.B.A. for Western Australia.

## THE COURT OF GOVERNORS OF UNIVERSITY COLLEGE, HULL.

Mr. F. J. Horth [F.] was appointed to represent the R.I.B.A. on the Court of Governors of the University College of Hull in place of Mr. John Bilson, who has retired owing to ill-health.

THE NATIONAL ASSOCIATION FOR THE PREVENTION OF  
TUBERCULOSIS.

Mr. H. M. Fairweather [P.] was appointed to represent the R.I.B.A. at the Sixteenth Annual Conference of the National Association for the Prevention of Tuberculosis, which will be held in London from 3 to 5 July.

## THE THAMES BRIDGES CONFERENCE.

Professor A. E. Richardson [F.] and Mr. W. Harding Thompson [F.] were appointed as members of the Thames Bridges Conference.

## REVISION OF ORDNANCE MAPS.

Mr. W. Harding Thompson [F.], was appointed to represent the R.I.B.A. at a Conference called by the Town Planning Institute to urge the bringing up to date of ordnance maps.

BRITISH ENGINEERING STANDARDS ASSOCIATION: CON-  
FERENCE ON THE STANDARDISATION OF GYPSUM PLASTER.

Mr. W. E. Vernon Crompton [F.] and Mr. Alan E. Munby [F.], were appointed to represent the R.I.B.A. at a Conference called by the B.E.S.A. to consider the standardisation of gypsum plaster.

THE DAYLIGHT ILLUMINATION SUB-COMMITTEE OF THE  
NATIONAL ILLUMINATION COMMITTEE OF GREAT BRITAIN.

Mr. P. J. Waldram [L.] was appointed as the R.I.B.A. representative on the Daylight Illumination Sub-Committee of the National Illumination Committee of Great Britain.

## THE FELLOWSHIP.

The Council by a unanimous vote elected Mr. W. G. Allen and Mr. W. L. Duncan to the Fellowship.

## MEMBERSHIP.

*Election 16 June 1930.*—Nominations for membership were approved as follows:—

As Fellows: 15 applications.

As Associates: 14 applications.

*Reinstatement.*—The following ex-members were reinstated:—

As Fellows: John Coulson Nicol.  
John Robert Sutton.

As Associate: Cyril John Crossman.

APPLICATION FOR ELECTION AS LICENTIATE UNDER  
SECTION III (f) OF THE SUPPLEMENTAL CHARTER OF 1925.

One application was approved.



### ARCHITECTURAL COMPETITIONS.

The Competitions Committee desire to point out that it would be of great assistance to them in their work if members would notify them immediately they hear of proposed competitions in any part of the country so that the Committee could at once get into touch with the promoters and guide them as to the correct procedure.

When conditions which are not in accordance with the R.I.B.A. Regulations have already been formulated by promoters it often necessitates lengthy and difficult negotiations before they can be amended to enable members to compete, and this would possibly be avoided if promoters were approached by the Competitions Committee at an early stage.

### NEW BUILDING MATERIALS AND PREPARATIONS.

The Science Standing Committee wish to draw attention to the fact that information in the records of the Building Research Station, Garston, Watford, is freely available to any member of the architectural profession, and suggest that architects would be well advised, when considering the use of new materials and preparations of which they have had no previous experience, to apply to the Director for any information he can impart regarding their properties and application.

### AUSTRALIAN ARCHITECTURAL STUDENTS' CLUB IN LONDON.

Australian students are advised that a Club has been formed for the purpose of facilitating study both in England and on the Continent. The Club meets at intervals when matters of interest are discussed for the mutual benefit of the members. All Australians are invited to join, and further particulars can be obtained from the Hon. Secretary of the Club, Mr. Eric Garthside, 6 Alberos Gardens, Golders Green, London, N.W.11.

### CRICKET MATCH.

The Architectural Association Cricket Club have challenged the R.I.B.A. to a cricket match, to be played at Elstree on Wednesday, 2 July. The Hon. H. A. Pakington [A.] has kindly consented to raise the team to represent the R.I.B.A. and would be glad to hear from any playing members who would be willing to take part. Mr. Pakington's address is: 2 Bedford Square, W.C.

### ARCHITECTS' GOLFING SOCIETY.

A proposal is on foot to form a golfing society in connection with the R.I.B.A. In the past members have from time to time arranged matches with the A.A., the Arts Club, the Master Builders' Federation, and other teams. It is now thought that these activities should be co-ordinated by the formation of an Architects' Golfing Society. The intention is to hold three or four meetings a year and to play matches against similar societies. The subscription to be 5s. per annum, students 2s. 6d.

The President, Sir Banister Fletcher, is personally interested in the proposal, and has most generously offered to give the Society, when formed, its first meeting at the Northwood Golf Course.

Will all architects wishing to join send their names, their lowest handicap at any club, and their subscription for the forthcoming year, to Mr. W. H. Ansell, at the R.I.B.A., 9 Conduit Street, W., he having consented to act as Honorary Secretary of the Society for the time being.

## The Annual Elections

The results of the Annual Elections are recorded in the subjoined report of the Scrutineers, which was read at the General Meeting on Monday, 16th June:—

The Scrutineers appointed to count the votes for the election of the Council and Standing Committees for the Session 1930-1931 beg to report as follows:—

1,272 envelopes were received—482 from Fellows, 522 from Associates and 268 from Licentiates.

The result of the election is as follows:—

### COUNCIL, 1930-1931.

PRESIDENT.—Sir Banister Fletcher (unopposed).

PAST PRESIDENTS.—John Alfred Gotch (Kettering) (unopposed); Walter Tapper (unopposed).

VICE-PRESIDENTS.—*Elected*: Henry V. Ashley, 994 votes; Dr. Raymond Unwin, 920; Henry Martineau Fletcher, 870; Francis Jones, 869.—*Not elected*: William Gillbee Scott, 734.

1,231 Voting Papers were received, of which 19 were invalid.

HON. SECRETARY.—Sydney Decimus Kitson (unopposed).

MEMBERS OF COUNCIL.—FELLOWS.—*Elected*: Professor Charles Herbert Reilly, 700 votes; Edwin Stanley Hall, 691; Sir Edwin Cooper, 673; William Curtis Green, 628; Herbert Tudor Buckland, 621; Herbert Duncan Searles-Wood, 524; Howard Morley Robertson, 412.—*Not Elected*: Duncan Alexander Campbell, 390; Harold Chilton Bradshaw, 350; Francis Thomas Verity, 349; Sir Alfred Brumwell Thomas, 326; John Alan Slater, 323; William Henry Ansell, 308; Henry Philip Burke Downing, 303; Charles Hilbert Strange, 220; William Thomas Curtis, 207; Louis Ambler, 198; Briant Alfred Poulter, 172; George Alfred Humphreys, 163; James Ernest Franck, 137. 1,231 voting papers were received, of which 55 were invalid.

ASSOCIATE MEMBERS OF COUNCIL.—*Elected*: Lieut.-Col. H. P. L. Cart de Lafontaine, 533 votes; Michael Theodore Waterhouse, 470; Major Thomas Cecil Howitt, 386.—*Not Elected*: Robert Norman Mackellar, 372; The Hon. Humphrey Arthur Pakington, 298; Charles Woodward, 291; Reginald Arthur Rix, 242; Austin Bloomfield, 218; Alister Gladstone Macdonald, 190; Harry Valentine Milnes Emerson, 181; Eric Rowstone Jarrett, 170. 1,231 voting papers were received, of which 42 were invalid.

LICENTIATE MEMBERS OF COUNCIL.—*Elected*: Lieut.-Col. Percy Alfred Hopkins, 737 votes; Major Frederick William Rees, 500.—*Not Elected*: Captain Augustus Seymour Reeves, 471; Major Albert Leigh Abbott, 402. 1,231 voting papers were received, of which 18 were invalid.

REPRESENTATIVES OF ALLIED SOCIETIES IN THE UNITED KINGDOM OR THE IRISH FREE STATE.—*Six Representatives from the Northern Province of England*—Lieut.-Col. Andrew Kerr Tasker (Northern Architectural Association); James Theodore Halliday (Manchester Society of Architects); Professor Leslie Patrick Abercrombie (Liverpool Architectural Society); George Dudley Harbron (York and East Yorkshire Architectural Society); George Herbert Foggitt (West Yorkshire Architectural Society); Walter Gerard Buck (Sheffield, South Yorkshire and District Society of Architects and Surveyors). *Five Representatives from the Midland Province of England*—Albert Thomas Butler (Birmingham Architectural Association); Albert Herbert (Leicester and Leicestershire Society of Architects); Basil Charlton Deacon (Northamptonshire, Bedfordshire and Huntingdonshire Association of Architects); George Morley Eaton (Nottingham and Derby Architectural Society); Ernest Hugh Buckingham (Norfolk and Norwich Association of Architects). *Four Representatives from the Southern Province of England*—Benjamin Priestley Shires (Devon and Cornwall Architectural



Society); Harold Brakspear (Wessex Society of Architects); Harry Hutt (Berks, Bucks and Oxon Architectural Association); John Arthur Smith (Hampshire and Isle of Wight Architectural Association). *Four Representatives from Allied Societies in Scotland*, nominated by the Council of the Royal Incorporation of Architects in Scotland.—Andrew Balfour (Glasgow); John Begg (Edinburgh); William Liddle Duncan (Aberdeen); Donald Alexander Stewart (Dundee). *One Representative of the South Wales Institute of Architects*.—Thomas Alwyn Lloyd (Cardiff). *Two Representatives of Allied Societies in Ireland*.—Frederick George Hicks (Royal Institute of the Architects of Ireland); Robert Hanna Gibson (Ulster Society of Architects).

**REPRESENTATIVES OF ALLIED SOCIETIES IN THE BRITISH DOMINIONS OVERSEAS.**—To be nominated by the Council of each of the following:—The Royal Architectural Institute of Canada; The Australian Institute of Architects; The New Zealand Institute of Architects; The Institute of South African Architects.

**REPRESENTATIVE OF THE ARCHITECTURAL ASSOCIATION (LONDON).**—George Grey Wornum (unopposed).

**REPRESENTATIVE OF THE ASSOCIATION OF ARCHITECTS, SURVEYORS AND TECHNICAL ASSISTANTS.**—William Henry Hamlyn (unopposed).

**CHAIRMAN OF THE BOARD OF ARCHITECTURAL EDUCATION.**—Leo Sylvester Sullivan (unopposed).

**CHAIRMEN OF THE ART, LITERATURE, PRACTICE AND SCIENCE STANDING COMMITTEES.**

**HONORARY AUDITORS.**—Ernest James Wedlock Hider (unopposed); Geoffrey Ronald Gilbertson Topham (unopposed).

**ART STANDING COMMITTEE.—FELLOWS.**—*Elected*: Arthur Keen, 804 votes; M. H. Baillie Scott, 887; Charles Henry Holden, 874; Edward Maufe, 857; Francis Winton Newman, 850; Harry Stuart Goodhart-Rendell, 788; Ernest Chawner Bewlay, 781; Harold Chalton Bradshaw, 751; Charles Frederick William Denning, 732; Louis Emmanuel J. G. de Soissons, 706.—*Not Elected*: Professor Stanley Davenport Adsham, 701; Oswald Partridge Milne, 670; Charles Holloway James, 655; Arthur Bedford Knapp-Fisher, 483; Robert Lowry, 462. 1,196 voting papers were received, of which 10 were invalid.

**ASSOCIATES.**—*Elected*: Ernest Berry Webber, 823 votes; Leonard Holcombe Bucknell, 752; The Hon. Humphrey Arthur Pakington, 675; Michael John Tapper, 672; Edwin Maxwell Fry, 646; Ronald Aver Duncan, 616.—*Not Elected*: Michael Theodore Waterhouse, 579; Frederick Edward Townsend, 564; John Clifford Procter, 494; Stephen Rowland Pierce, 475; Charles Douglas St. Leger, 253. 1,196 voting papers were received, of which 13 were invalid.

**LICENTIATES.**—*Elected*: Archibald Stuart Soutar, 927 votes; Francis Robert Taylor, 861; Samuel George Short, 701.—*Not Elected*: Reginald Minton Taylor, 577. 1,196 voting papers were received, of which 35 were invalid.

**LITERATURE STANDING COMMITTEE.—FELLOWS.**—*Elected*: Martin Shaw Briggs, 999 votes; Basil Oliver, 982; John Murray Easton, 899; Charles Sydney Spooner, 889; David Theodore Pyfe, 867; Frederick Chatterton, 858; Henry Castree Hughes, 829; Arthur Edward Henderson, 817; Lionel Godfrey Pearson, 795; Arthur Stanley George Butler, 761.—*Not Elected*: Thomas Falconer, 707; Guy Donne Gordon Blake, 703; Andrew Laurence Noel Russell, 664. 1,187 voting papers were received, of which 9 were invalid.

**ASSOCIATES.**—*Elected*: Grahame Burnell Tubbs, 865 votes; Arthur Trystan Edwards, 836; Professor Frank Stephen Granger, 813; Harold William Chester, 763; Lieut.-Col. H. P. L. Cart de Lafontaine, 715; Eric Rowlatone Jarrett, 709.—*Not Elected*: Geoffrey Alan Jellicoe, 619; Miss Eleanor

Katherine Dorothy Hughes, 579; James McLaren Ross, 543. 1,187 voting papers were received, of which 14 were invalid.

**LICENTIATES.**—*Elected*: Frederick Herbert Mansford, 845 votes; Arthur Joseph Penty, 795; Arthur Baldwin Hayward, 751.—*Not Elected*: Edwin Morcombe Hick, 723. 1,187 voting papers were received, of which 27 were invalid.

**PRACTICE STANDING COMMITTEE.—FELLOWS.**—*Elected*: Henry V. Ashley, 745 votes; Harry Smith Fairhurst, 639; Percy Edward Thomas, 627; George Churchus Lawrence, 608; Edmund Bertram Kirby, 595; Sydney Joseph Tatchell, 583; Francis Thomas Verity, 556; Herbert Duncan Searles-Wood, 540; William Ernest Watson, 513; John Alan Slater, 512.—*Not Elected*: William Henry Gunton, 425; David Barclay Niven, 412; John Swarbrick, 366; William Henry Dashwood Caple, 311; Herbert Arthur Welch, 282; Augustine Alban Hamilton Scott, 263; Digby Lewis Solomon, 241; Charles Nicholas, 241; James Ernest Franck, 216; George Arthur Lansdown, 209; Alexander Burnett Brown, 202. 1,180 voting papers were received, of which 41 were invalid.

**ASSOCIATES.**—*Elected*: John Douglas Scott, 919 votes; Edward Unwin, 827; Robert Norman Mackellar, 806; Charles Woodward, 795; John Batty, 773; Christopher James Fawcett Martindale, 702.—*Not Elected*: William Henry Hamlyn, 700; Frederick Richard Jelley, 504. 1,180 voting papers were received, of which 20 were invalid.

**LICENTIATES.**—*Elected*: Frederick Roger Betenson, 892 votes; Captain Augustus Seymour Reeves, 775; Joseph William Dennington, 773.—*Not Elected*: Malcolm Waverley Matts, 619. 1,180 voting papers were received, of which 29 were invalid.

**SCIENCE STANDING COMMITTEE.—FELLOWS.**—*Elected*: Dr. Raymond Unwin, 1,005 votes; Major Charles Frederick Skipper, 898; Robert John Angel, 880; Alan Edward Munby, 871; Arthur John Hope, 846; William Alexander Harvey, 845; Samuel Pointon Taylor, 841; Edward John Partridge, 792; George Reginald Farrow, 787; Thomas Edward Scott, 700.—*Not Elected*: Leonard Rome Guthrie, 681; Harry Hutt, 675; William Thomas Benslyn, 607; William Edward Vernon Crompton, 539. 1,194 voting papers were received, of which 10 were invalid.

**ASSOCIATES.**—*Elected*: Hope Baginval, 1,046 votes; Arnold Fielder Hooper, 922; Eric Leslie Bird, 858; Charles Stanley White, 825; Edwin Gunn, 822; John Archibald Bessant, 786.—*Not Elected*: Alfred Ernest Mayhew, 557; William Kaula, 555. 1,194 voting papers were received, of which 15 were invalid.

**LICENTIATES.**—*Elected*: Alfred Henry Barnes, 950 votes; Lieut.-Col. Percy Alfred Hopkins, 807; Percy John Waldram, 801.—*Not Elected*: George Nathaniel Kent, 677. 1,194 voting papers were received, of which 17 were invalid.

**Scrutinere**  
 E. J. W. HIDER [F.], *Chairman*.  
 ERNEST G. ALLEN [F.]  
 GEOFFREY C. WILSON [F.]  
 RONALD TOPHAM [A.]  
 CHARLES H. FREEMAN [L.]

15 June 1930.

## Notices

### THE RESTORATION OF ST. PAUL'S CATHEDRAL. SPECIAL GENERAL MEETING AND EXHIBITION.

MONDAY, 23 JUNE 1930, AT 8.30 P.M.

A Special General Meeting will be held on Monday, 23 June 1930, at 8.30 p.m., when a lecture on "The Restoration of St. Paul's Cathedral" will be delivered



by Captain C. Stanley Peach [F.], and Mr. W. Godfrey Allen [F.].

The lecture will be illustrated by lantern slides and by an exhibition of models, masonry specimens, drawings and photographs.

The exhibition will be open daily in the R.I.B.A. Galleries from Monday, 23 June to Saturday, 28 June inclusive, between the hours of 10 a.m. and 8 p.m. (Saturday, 5 p.m.).

#### MEMBERS' TOUR TO THE UNITED STATES AND CANADA.

In view of the success which attended the visit to the United States and Canada of a party of members of the R.I.B.A. last year, and as many members who were unable to avail themselves of that opportunity expressed a desire to undertake such a trip on a future occasion, it has been decided to organise a further party this year.

The numerous advantages to be gained by undertaking a visit to the United States and Canada from an architectural point of view will be obvious, particularly when the visit is made in company with fellow-members of the Institute.

The suggested tour will include New York, Philadelphia, Washington, Detroit, Niagara Falls, Toronto, Ottawa and Montreal, and notes regarding the places of interest from an architectural standpoint, compiled by Mr. Percy E. Thomas, O.B.E., F.R.I.B.A., the leader of last year's party, will be available for members.

The duration of the trip will be approximately one month, and the cost, including cabin class accommodation on the Atlantic steamers, hotel accommodation in the United States and Canada, rail fares, etc., will be about £80. This amount is exclusive of meals ashore, gratuities, transfer of passengers and baggage between stations, steamers, hotels, etc., and sight-seeing trips.

The party will travel from Liverpool for New York by the Cunard Liner *Samuria* on 5 July, returning by the *Ascania* from Montreal to Plymouth and London on 25 July.

Relatives and friends of members will be welcomed.

Members interested are requested to apply to Mr. H. T. Leese, The Cunard Steamship Company, Ltd., 26-27, Cockspur Street, London, S.W.1, who will be pleased to forward a complete itinerary, etc., on request.

#### OVERSEAS APPOINTMENTS.

Members contemplating applying for appointments overseas are recommended to communicate with the Secretary R.I.B.A., who will supply them with any available information respecting conditions of employment, cost of living, climatic conditions, etc.

WILLIAM H. HAMLYN,

Hon. Sec. R.I.B.A., Salaried Members' Committee.

#### ELECTION OF MEMBERS, 1 DECEMBER, 1930.

Associates who are eligible and desirous of transferring to the Fellowship are reminded that if they wish to take advantage of the election to take place on 1 December 1930, they should send the necessary nomination forms to the Secretary R.I.B.A. not later than Saturday, 27 September 1930.

#### LICENTIATES AND THE FELLOWSHIP.

The attention of Licentiates is called to the provisions of Section IV, Clause 4 (b) and (c) of the Supplemental Charter of 1925. Licentiates who are eligible and desirous of transferring to the Fellowship can obtain full particulars on application to the Secretary R.I.B.A., stating the clause under which they propose to apply for nomination.

#### R.I.B.A. STATUTORY EXAMINATION FOR THE OFFICE OF DISTRICT SURVEYOR AND THE EXAMINATION FOR THE OFFICE OF BUILDING SURVEYOR.

The R.I.B.A. Statutory Examination for the office of District Surveyor under the London Building Acts, and the examination for the office of Building Surveyor under Local Authorities, will be held at the R.I.B.A., London, on 15, 16 and 17 October 1930.

The closing date for receiving applications for admission to the examinations, accompanied by the fee of £3 3s., is 24 September.

Full particulars of the examinations and application forms can be obtained from the Secretary R.I.B.A.

## Competitions

#### BANGOR (CO. DOWN) LAY-OUT OF SEA-FRONT.

The Bangor (Co. Down) Borough Council invite architects and town planners to submit, in open competition, designs for the lay-out of the sea-front in the Borough.

Assessor: Professor Patrick Abercrombie, M.A. [F.].

Premiums: £150 and £50.

Last day for receiving designs, 1 September 1930.

Conditions of the competition may be obtained on application to Mr. J. Milliken, Town Clerk, Borough Council Offices, Bangor, Co. Down. Deposit £1 is.

#### BARNSTAPLE: OPEN AIR SWIMMING BATH.

The Competitions Committee desire to call the attention of members to the fact that the conditions of the above competition are not in accordance with the regulations of the R.I.B.A. The Competitions Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime members should not take part in the competition.

#### CARLISLE: ENGLISH STREET IMPROVEMENT.

The Corporation of the City of Carlisle invite architects to submit, in open competition, designs for the façade to English Street and the Victoria Viaduct, suitable for Shops and Business Premises.

Assessor: Mr. Francis Jones [F.].

Premiums: £300, £200 and £100.

Conditions of the competition may be obtained on application to Mr. Percy Dalton, A.M.Inst.C.E. [A.], City Engineer, 18 Fisher Street, Carlisle. Deposit £1 is.



**CHULMLEIGH, DEVON: PROPOSED MINISTER'S HOUSE.**

The Competitions Committee desire to call the attention of members to the fact that the conditions of the above competition are not in accordance with the regulations of the R.I.B.A. The Competitions Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime members should not take part in the competition.

**LIVERPOOL: DEVELOPMENT OF SITE.**

The General Building Syndicate, Ltd., invite architects to submit, in open competition, schemes for the development of a site at Liverpool fronting St. Johns Lane, Queen Square and Roe Street.

Premiums: £250, £100 and £50.

Conditions of the competition may be obtained on application to The Secretary, General Building Syndicate, Ltd., 36 St. Martin's Lane, London, W.C.2. Deposit £2 2s. [Conditions have not yet been received.]

**LIVERPOOL: PROPOSED PIER HEAD IMPROVEMENTS.**

The Liverpool City Council propose to offer premiums of 1,000 guineas and 500 guineas in connection with a competition for the improvement of the amenities of the Pier Head. [Conditions are not yet available.]

**LUTON: TOWN HALL.**

The Town Council of Luton invite architects to submit, in open competition, designs for a new Town Hall and Municipal Buildings, at a cost of £250,000.

Assessor: Sir A. Brumwell Thomas [F.].

Premiums: £500, £300, £200, and £100.

Last day for receiving designs, 31 July 1930.

Conditions of the competition may be obtained on application to Mr. W. Smith, Town Clerk, 2 Upper George Street, Luton. Deposit £2 2s.

**RAMSEY, ISLE OF MAN: GRAMMAR SCHOOL.**

The Education Authority of the Isle of Man invite architects to submit, in open competition, designs for a new Grammar School to be erected at Ramsey.

Assessor: Mr. T. Taliesin Rees [F.].

Last day for receiving designs: 30 September 1930.

Conditions of the competition may be obtained on application (before 1 July 1930) to Mr. T. R. Lewin, Clerk to the Authority, Education Office, Strand Street, Douglas, I.O.M. Deposit £1 1s.

[Conditions have not yet been received.]

**WEST HUMBERSTONE: LIBRARY.**

The Leicester Corporation propose to invite local architects to submit, in competition, designs for a Library, to be erected at West Humberstone.

Assessor: Mr. Hugh Gold [F.].

Premiums: £75, £50 and £25.

[Conditions are not yet available.]

**WORTHING: MUNICIPAL BUILDINGS.**

The Corporation of Worthing invite architects to submit, in open competition, designs for new Municipal Buildings, to be erected in Chapel Road, Worthing.

Assessor: Mr. Henry V. Ashley, V.-P.R.I.B.A.

Premiums: £350, £250, £150 and £50.

Last day for receiving designs, 5 July 1930.

Conditions of the competition may be obtained on application to Mr. J. Kennedy Allerton, Town Clerk, Worthing. Deposit £1 1s.

## Members' Column

**CHANGE OF ADDRESS.**

MR. HASTWELL GRAYSON, M.A., F.R.I.B.A., and Mr. Leonard Barnish, F.R.I.B.A., have removed their office from 606 Royal Liver Building, Liverpool, to 58 Rodney Street, Liverpool. Telephone—Royal 1976.

**PARTNERSHIP WANTED.**

A.R.I.B.A., qualified at recognised University School, 28 years old, seeks partnership. Good designer and draughtsman, and competent at detailing. Holds City and Guilds Diploma in Quantity Surveying. Six years 1st class office experience; at present with very well-known London architect. Extensively travelled, and has studied on the Continent. Public School. Capital available.—Apply Box 1360, c/o The Secretary R.I.B.A., 9 Conduit Street, W.1.

**PRACTICE WANTED.**

MEMBER wishes to purchase an old established practice, West of England or South Coast preferred, or would entertain a partnership in a firm of standing.—Apply Box 2640, c/o The Secretary R.I.B.A., 9 Conduit Street, W.1.

**PARTNERSHIP OR PRACTICE WANTED.**

YOUNG Associate, with small practice in London, chiefly domestic, is desirous of obtaining a partnership or purchasing an established practice in London or South-Eastern district. Capital available.—Apply Box 1160, c/o The Secretary R.I.B.A., 9 Conduit Street, W.1.

**OFFICE ACCOMMODATION WANTED.**

FELLOW, practising in London, desires offices either in the West End or St. James's. Would consider sharing drawing office if private office available for own use.—Apply Box 7746, c/o The Secretary R.I.B.A., 9 Conduit Street, W.1.

## Minutes XVII

**SESSION 1929-1930.**

At the Fifteenth General Meeting (Business) of the Session, 1929-1930, held on Monday, 16 June 1930, at 8.0 p.m.,

Sir Banister Fletcher, F.S.A., President, in the Chair.

The attendance book was signed by 16 Fellows (including 9 members of Council), 9 Associates (including 3 members of Council), and 4 Licentiates (including 1 member of Council).

The Minutes of the Ordinary General Meeting held on 26 May 1930, having been published in the JOURNAL, were taken as read, confirmed, and signed as correct.

The Hon. Secretary announced the decease of:—

The Rt. Rev. G. F. Browne, transferred to the Honorary Associateship 1926.

William Thomas Mynors Walker, elected Fellow 1906.

Reginald Bruce, elected Associate 1915.

John Robert Earnshaw, elected Associate 1894.

Ernest James Hammond, transferred to Licentiate Class 1925.

Brian Edward FitzGerald Sheehy, transferred to Licentiate Class 1925.

William Youlten, transferred to Licentiate Class 1925.

and it was Resolved that the regrets of the Institute for their loss be entered on the Minutes and that a message of sympathy and condolence be conveyed to their relatives.

The following members attending for the first time since their election were formally admitted by the President:—

Mr. T. B. M. Wightman [F.],

Mr. J. W. S. Monson [A.].



The following candidates for membership were elected by show of hands:—

#### AS FELLOWS (15).

BENJAMIN: ASHLEY FLORIAN [A. 1906].  
BUCKNELL: LEONARD HOLCOMBE [A. 1913].  
CHALLEN: HAROLD BERTHAM [A. 1921].  
CLARK: CHARLES WALTER, P.A.S.I. [A. 1908].  
CLARKE: JAMES ANDREW, P.A.S.I. [A. 1919], Newcastle.  
CLIFTON: EDWARD NOEL, B.A. Cantab., P.A.S.I. [A. 1921].  
JACKSON: GORDON WALLEY [A. 1925], Bournemouth.  
SUTHERLAND: THOMAS SCOTT [A. 1924], Aberdeen.

And the following Licentiates who have passed the qualifying Examination:—

DOWTON: WILLIAM LEONARD.  
GREENIE: WALLACE AUSTIN, Bournemouth.  
LAWRENCE: HENRY MATTHEW, Birmingham.  
WALKLEY: ALMON HENRY, Melbourne, Victoria, Australia.

And the following Licentiates who are qualified under Section IV, Clause 4 c (ii) of the Supplemental Charter of 1925:—

BRAGG: HENRY.  
CANTELL: MARK TAYLOR, Hollywood, Los Angeles, California.  
ROBERTSON: ROBERT.

#### AS ASSOCIATES (14).

BENNETT: WILLIAM GARNSWORTHY [Special], Perth, W. Australia.

BEVERIDGE: GILBERT ROBERT [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], Leek, Staffs.

COWIN: JOHN NORRIS, B.Arch. Liverpool [Passed five years' course at the Liverpool School of Architecture, University of Liverpool. Exempted from Final Examination after passing Examination in Professional Practice].

DUNCAN: DAVID RONALD [Final].

HILLIER: NORMAN BASIL [Passed five years' joint course at the Architectural Association and the Liverpool School of Architecture, University of Liverpool. Exempted from Final Examination after passing Examination in Professional Practice], Winchester.

KELHAM: HARRY WILKINSON [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], Stamford, Lincs.

McINTOSH: WILLIAM GORDON [Passed five years' course at the University of Witwatersrand, Johannesburg. Exempted from Final Examination after passing Examination in Professional Practice], Pretoria, Transvaal.

MACLEOD: ALEXANDER NORMAN [Passed five years' course at McGill University, Montreal. Exempted from Final Examination after passing Examination in Professional Practice], Montreal, Canada.

ORFEUR: RONALD FRANCIS [Final], Welwyn Garden City.

RITCHIE: JOHN ARCHIBALD [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], Shanghai.

ROBINSON: AUDYN PEART [Final].

TOUGH: ALEXANDER [Passed five years' course at Robert Gordon's College, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice].

WAKELIN: RICHARD NEWTON [Special].

WALL: MARY LILLIAN JOY (Miss) [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice].

The Scrutineers' Report, giving the results of the Annual Election of the Council, the Standing Committees and the Hon. Auditors, was read.

The President declared the Officers, the Members of the Council, the Standing Committees and the Hon. Auditors duly elected in accordance therewith.

On the motion of the President a vote of thanks was passed by acclamation to the Scrutineers for their labours in connection with the elections.

The formal business of the meeting having concluded, the President invited members to join in a private and informal discussion on subjects of professional interest or difficulty.

The proceedings closed at 9.0 p.m.

### ARCHITECTS' BENEVOLENT SOCIETY

(Insurance Department).

#### HOUSE PURCHASE SCHEME

(for property in Great Britain only).

The Society is able, through the services of a leading Assurance Office, to assist an Architect (or his client) in securing the capital for the purchase of a house for his own occupation, on the following terms:—

#### AMOUNT OF LOAN.

Property value exceeding £666, but not exceeding £2,500, 75 per cent. of the value.

Property value exceeding £2,500, but not exceeding £4,500, 66½ per cent. of the value.

The value of the property is that certified by the Surveyor employed by the Office.

#### RATE OF INTEREST

In respect of loans not exceeding £2,000 5½ per cent. gross.

" " in excess of " 5½ " "

#### REPAYMENT.

By means of an Endowment Assurance which discharges the loan at the end of 15 or 20 years, or at the earlier death of the borrower.

#### SPECIAL CONCESSION TO ARCHITECTS.

In the case of houses in course of erection, it has been arranged that, provided the Plan and Specification have been approved by the Surveyor acting for the Office, and the amount of the loan agreed upon, and subject to the house being completed in accordance therewith, ONE HALF of the loan will be advanced on a certificate from the Office's Surveyor that the walls of the house are erected and the roof on and covered in.

NOTE.—In 1928, over £20,000 was loaned to architects under this scheme, and as a result over £100 was handed to the Benevolent Fund.

If a quotation is required, kindly send details of your age next birthday, approximate value of house and its exact situation, to the Secretary Architects' Benevolent Society, 9 Conduit Street, London, W.

Members sending remittances by postal order for subscriptions or Institute publications are warned of the necessity of complying with Post Office Regulations with regard to this method of payment. Postal orders should be made payable to the Secretary R.I.B.A., and crossed.

It is desired to point out that the opinions of writers of articles and letters which appear in the R.I.B.A. JOURNAL must be taken as the individual opinions of their authors and not as representative expression of the Institute.

#### R.I.B.A. JOURNAL.

DATES OF PUBLICATION.—1930.—12 July; 9 August; 20 September; 18 October.



# Journal of the Royal Institute of British Architects

VOL. XXXVII. No. 17

THIRD SERIES

12 JULY 1930

## Contents for 12 July 1930

	Page
THE BISHOP'S PALACE GATE, NORWICH. By John Sell Cotman	<i>Prominence</i>
BRITISH ARCHITECTS' CONFERENCE AT NORWICH:	
INAUGURAL MEETING	607
REGIONAL PLANNING, WITH SPECIAL REFERENCE TO NORWICH AND NORFOLK. By W. Harding Thompson [F.]	610
DISCUSSION	617
THE CONFERENCE BANQUET	623
NOTES ON VISITS	631
NOTES ON MOTOR COACH TOURS	637
IMPRESSIONS OF THE CONFERENCE. By Sir John Salmon [F.], John D. Clarke [F.] and Rodney H. Alsop [F.]	639
LIST OF MEMBERS	642
ENGLISH CHURCH ART. By C. F. Annesley Voysey [F.]	644
CORRESPONDENCE:	
EASEMENTS OF LIGHT. By John Swarbrick [F.]	645
THE EDUCATION OF AN ARCHITECT. By W. S. Pearchon, M.A. [A.]	645
MR. H. CHALTON BRADSHAW [F.]	645
NOTES BY MEMBERS OF THE SCIENCE STANDING COMMITTEE:	
BARITUM PLASTER FOR X-RAY ROOMS. By Alin E. Munby [F.]	646
SAFETY BELTS IN WINDOW CLEANING. By Louis Blanc	646
RE-OPENING OF ST. PAUL'S CATHEDRAL	646
THE FINE ART COMMISSION	646
ALLIED SOCIETIES:	
ESSEX, CAMBRIDGE AND HERTFORDSHIRE SOCIETY OF ARCHITECTS	647
XIIth INTERNATIONAL CONGRESS OF ARCHITECTS	647
OBITUARY:	
THE LATE WILLIAM JOHN LOCKE. By The President (Sir Banister Fletcher, F.S.A.)	648
STUDENTS R.I.B.A.	648
R.I.B.A. PROBATIONERS	649
NOTES FROM THE MINUTES OF THE COUNCIL	649
EXAMINATIONS	650
NOTICES	650
COMPETITIONS	651
MEMBERS' COLUMN	651
MINUTES	652
A.B.S. SCHEME OF INSURANCE	652





*From "Architectural Antiquities of Norfolk" by John Sell Cotman*

THE BISHOP'S PALACE GATE, NORWICH. By John Sell Cotman

R.I.B.A. Collection





BUCKLING HALL

## BRITISH ARCHITECTS' CONFERENCE AT NORWICH

18—21 JUNE 1930

Inaugural Meeting, 19 June 1930

**T**HE Conference assembled on Thursday morning, 19th June 1930, at the Stuart Hall, Norwich, under the presidency of Sir Banister Fletcher, F.S.A., P.R.I.B.A. The President was supported by the Lord Mayor and Lady Mayoress of Norwich (Mr. and Mrs. H. Harper Smith), the Sheriff of Norwich (Mr. C. Watling), the President of the Norfolk and Norwich Association (Mr. Stanley J. Wearing, F.R.I.B.A.), and Mr. E. T. Boardman, F.R.I.B.A. (Past President of the Norfolk and Norwich Association).

Members were officially welcomed by the Lord Mayor, who said:—

It is with the greatest possible pleasure that I have to offer our city's welcome to the Royal Institute of British Architects. It caused me no little surprise to learn that since the foundation of your Institute, well-nigh a century ago, you have never as a body officially visited this city.

Norwich is so rich in architectural treasures, providing such a diversity of buildings characteristic of many centuries' workmanship, that one wonders how you could for so long have forsworn the attractions which we confidently believe await you in our ancient city!

I welcome you with a sincerity rendered all the stronger by my firm conviction of the vital importance in the life of our country to-day of the work upon which you are engaged, and to which you bring such a wealth of talent and such whole-hearted interest. Probably there never was a time when the work of the architect assumed such importance in the public eye as it does to-day. I read almost daily in our papers and elsewhere of the growing menace to our countryside of the constantly extending bungalow towns, housing estates and the like. The cry of "Save the countryside" is a now familiar slogan, and it is to be hoped that the dangers inherent in the



present haphazard method of building have been realised in time. The part which you and your Institute have to play in the work of beautifying our towns and preventing the spoliation of our countryside is indispensable. You are the experts to whom we look for advice in all our efforts to preserve the treasures of the past, and to ensure that the buildings of this present age become a worthier heritage for generations yet to be. During the twelve years which have succeeded the Great War the developments which have taken place up and down the country are almost beyond our power to grasp, nor are they likely to cease or slacken in the years which lie before us. The problems confronting your profession to-day must be fascinating in their variety. Here in Norwich we are now confronted with the practical difficulty of adapting an ancient city to the requirements of modern times. We want to preserve the picturesque and characteristic flavour of antiquity, but at the same time we have to meet the needs of the present day, with the constantly increasing road traffic, the demand for speed, and all the bustling activity of our modern civilisation. The solutions which have been brought forward are many and infinitely varied. It may with truth be said: "So many men, so many opinions." Be that as it may, the problem should be of sufficient interest to provide you with much food for imagination during your sojourn here, and it is only typical of many such as you must be called upon to solve to-day. Not least important among your responsibilities is that of educating opinion in what is really valid and satisfying in architecture. The influence which environment plays in the life of mankind is not easy to estimate, but certainly few would hesitate to affirm the importance which buildings consciously or unconsciously assume in our lives. By educating the layman to an appreciation of, and a demand for, the best in architecture you can make no small contribution to the progress of the amenities of life. Your Institution, with its enormous membership and its far-reaching organisation, extending through all parts of the British Empire, is one of the most influential professional associations in existence. I have read with interest the account of

its foundation in 1834, of its ever-increasing sphere of usefulness, and particularly of the important part which it has played in developing the educational side of your work. The presence here of delegates from not only all parts of the British Isles, but from Australia, Canada, India and South Africa, is sufficient testimony in itself of its far-reaching influence.

I understand there are present representatives of surrounding district councils and the City Council, who are invited to hear the paper to be read this morning. You are most fortunate in meeting under the presidency of one who is world-famous in his profession. His unique gifts have been recognised not only in all parts of Europe, but so far afield as China and Japan, whilst academic honours have been showered upon him. In this country he is widely known by reason of his years of devoted service in high capacities in the City of London, whilst his monumental history of architecture—an enduring classic if ever there was one—has made his name known far beyond architectural circles. In electing him your President you conferred on him another signal honour, and in so doing also did honour to yourselves. From his inaugural address I anticipate that you will receive inspiration and practical help. I am looking forward, too, to the publication of Mr. W. Harding Thompson's paper on "Regional Planning, with Special Reference to Norwich and Norfolk." We are deeply concerned with the beautifying of the "Heart of East Anglia" and "The King's Homeland," and any authoritative suggestions would be most welcome.

In assuring you of our very real pleasure in welcoming you to our city, I will conclude by wishing you in all sincerity a most auspicious, fruitful and successful Conference. You have a crowded programme before you, and I have observed from your excellent handbook that the wealth of interesting places in which our city and county abound has rendered it necessary to organise alternative programmes. This being so, it is very evident that you must come again and yet again, until you have thoroughly exhausted—if that indeed be possible—the multitude of good things which here await you.

## The President's Inaugural Address

The PRESIDENT (Sir Banister Fletcher, F.S.A.) then gave his inaugural address. He said: I am very pleased to have the opportunity in my inaugural address for this Norwich Conference to thank the Lord Mayor and the civic authorities and others for their kind hospitality and assistance in arranging the Conference, and for providing us with such a fine room in which to hold our meetings. And I should like now, my Lord Mayor, to thank you on behalf of the Royal Institute for the very excellent address which you have just given us. It seems to

me that we are meeting in very sympathetic surroundings in this old city of Norwich, and it is pleasant to think that we have the civic authorities with us in dealing with the subjects which we are here meeting to discuss.

As President I give a very hearty welcome to the members of the Institute from all parts of the British Dominions, and their wives and daughters, and hope they will have a pleasant and instructive time. We realise, of course, that the work of organising a conference of this kind is very heavy, and this has been



carried out by an Executive Committee, with the assistance of several sub-committees, and to every member of these we owe a debt of gratitude for the excellent arrangements which have been made. I should like to add a special tribute of thanks to Mr. Eric W. B. Scott, the honorary secretary of the East Anglian Society of Architects, for the remarkable thoroughness and

give our members from all parts of the British Empire three days of social intercourse and informal exchange of ideas in congenial surroundings. This is the ninth of the annual conferences of the Royal Institute and Allied Societies since the series was started in the year 1921, when we met at Liverpool. Since then we have been to Cardiff, Edinburgh, Oxford, Newcastle,



NORWICH CATHEDRAL FROM SOUTH-EAST

devotion which he has displayed in connection with the preparatory work which has been necessary.

It is needless for me to give more than a general explanation as to the objects of these annual conferences. They enable architects from all over the Empire to join in a discussion on some topic of professional and public interest. They provide the pleasantest conditions for architects to see the most interesting buildings, new and old, in the city where they meet, and the surrounding countryside. They

Bath, London and York, all of them places with their own treasures of fine architecture, ancient and modern.

Now we come happily to Norwich, which has been selected this year, and if I were to paraphrase the old phrase and say: "Let us now sing famous cities," your city of Norwich, my Lord Mayor, would easily take its place in that great company. I personally derive a peculiar interest in referring for a moment to the beauty, which I absorbed in my early youth, of Norwich and the surrounding country, because, many years ago, when



I was about six and a half years old, I was sent to a small place not far from here, called Acle, with its well-known bridge, on the supposition that I should probably die. I think you will agree with me, those of you who live in Norfolk, that if you are strong enough as an imported stranger from London to live through a winter in wind-swept Acle, you have established your footing firmly on this earth, and have a good sporting chance of living to a hale and hearty old age. The East Anglian Society of Architects, of whom Mr. Stanley Wearing, a Fellow, is President, includes within its orbit both the Norfolk and Norwich Association of Architects, founded in 1921, as well as the Suffolk Association of Architects, founded in 1929, and it is to the energy and public-spirited co-operation of these Allied Societies that we shall owe our successful meetings in this ancient and historic city, which has so many and various associations with celebrities in the world of literature, of banking, of art, of painting, of crafts, and of commerce, as well as architecture and religion. Besides all this, has not the Norwich Union, with its posters, made your Cathedral spire known the world over? Indeed, I believe that the insurance enterprise expressed in that daring advertisement was largely responsible for the money which rebuilt Chicago after her disastrous fire. Thus is the world linked together—a cathedral spire in Norwich and a destructive fire in Chicago. I need not dilate upon the past and present glories of Norwich, but I should like to express our warm congratulations for the excellent handbook, which has been prepared by the Chairman of the Handbook Committee, Mr. E. J. Tench, one of our Fellows, and the Secretary, Mr. Theodore Scott, M.C. It represents a great deal of hard work during the past year, and I am informed by Mr. Tench that Mr. Scott has done the greater part of the preparation of this handbook, which certainly redounds greatly to his credit and will help to give us much more interest in our visit.

In addition to the opportunity they afford for the exchange of ideas between ourselves, these conferences enable us working architects to bring the claims and aims of good architecture more prominently to the

minds of the citizens of each place in which the Conference is held, and direct their attention to the necessity of developing their city on right and proper lines. The citizens of Norwich should keep well in view the desirability of protecting their heritage of ancient buildings—and ensure that new buildings should be designed with beauty and built in truth, worthy of the city's great past and its promising future. There is a verse in a well-known hymn which puts it into the mouth of a Christian to say "A charge to keep I have, a God to glorify." Equally should a citizen worthy of a famous city say - "A charge to keep I have, a city to glorify." We should do well in this respect to remember the citizens of the little rival cities of mediæval Italy, who expressed their civic pride and religious piety in the erection of noble buildings. Let us to-day emulate those brave little mediæval cities of Italy in our building enterprises for our modern cities in England. I think we shall all agree as to the beauty and attraction of this ancient city of Norwich, with its interesting buildings which appeal to all lovers of our art, and I should like here to put forward a plea to the people of Norwich to lend their aid, as I know they will from what the Lord Mayor says, and do their utmost to preserve the wonderful old churches, country houses and villages of East Anglia, which once were situated at centres of prosperous industries, but which have sometimes suffered from the inevitable migration of mechanical industries to districts of coal and iron. Let us have a care for these buildings which have served well in the past, and, if possible, utilise them for the present. I again thank you, my Lord Mayor, for the very excellent address and advice that you have given, and I will now call upon Mr. Harding Thompson, F.R.I.B.A., to read his paper on "Regional Planning, with special reference to Norwich and Norfolk," and I feel sure he will emphasise the urgent and the instant necessity which the Lord Mayor and Corporation of Norwich already feel of ensuring the wise and skilful planning of the future development of the city and surrounding countryside, so that later on there may be no lamentations over vandalism which might have been prevented.

## Regional Planning: with Special Reference to Norwich and Norfolk

BY W. HARDING THOMPSON (F.).

[A Paper read at the Inaugural Meeting of the British Architects' Conference at Norwich on Thursday, 19 June 1930.]

### I. INTRODUCTION.

THE urgent need for planning on a regional or national basis has been manifest to many men of vision for at least twenty years, but serious study has only been given to the technique of

the subject, in its various aspects, since the last European war. During the war, the co-ordination of effort was proved to be of vital importance. It was found impossible to mobilise all the resources of this country in materials and labour unless it were done on



a comprehensive plan under the control of a central government. After the Armistice, ambitious schemes for reconstruction were begun, and, although only partially realised, a policy was adopted for planning before construction, instead of leaving things to chance and individual enterprise. No army in time of war could survive if each individual soldier had his own plan of campaign, and no nation in time of peace can hope to prosper unless developments proceed under control and in accordance with a well considered plan.

The principle of Regional Planning is not new to this country, for some sixteen centuries have passed since the Romans established new towns at selected points on virgin soil and laid out and constructed a complete system of new regional communications. The Roman arterial roads still form a very important part of the framework of our national road system.

When future generations come to assess the value of our own times in the matter of town and regional planning, their verdict may possibly be that we lacked imagination, because our statutory powers were first acquired merely for the *detailed* planning of comparatively small areas on the outskirts of towns instead of beginning with the *outline* planning of the larger regions of which the towns form only a part.

I do not in any way wish to minimise the very far-reaching and pioneer work of men like Mr. John Burns, who framed the first English Town Planning Act of 1909, nor the work of all those responsible for the various amending Acts that give increased facilities for planning. It is due to their efforts and to the wise guidance and enthusiasm of Mr. G. L. Pepler and his staff at the Ministry of Health that so much has been already accomplished.

It is, however, increasingly obvious to many engaged in practice that increased powers are necessary for the regional authorities, that will enable them to make effective their outline proposals under a scheme for much larger areas, leaving the more detailed work to be carried out later by the local authorities concerned in their individual or joint town planning schemes.

## II. EXISTING POWERS UNDER THE TOWN PLANNING ACT, 1925.

The Act of 1925 empowers local authorities to prepare a scheme for "any land which is in course of development, or appears likely to be used for building purposes"; also, in approved cases, land may be included which is "already built upon," and "land not likely to be used for building purposes" if "the general object of the scheme would be better secured" by so doing. Moreover, any area of "special architectural, historic or artistic interest" may be included in the scheme "with a view to preserving the character and features of the locality."

The Act under which we are now working, therefore, does not apply strictly to built-on areas nor to the large

rural districts which are considered as unlikely to develop for building. As will be described later, several authorities may combine to form a joint town planning committee, and many have done so, in order to deal with a larger area of land, but the scope of a scheme as defined by the Act still holds good.

Under the Local Government Act of 1929, county councils now have power to act jointly with local authorities in the preparation or adoption of a town planning scheme, or the county council may itself be responsible for the scheme. Nevertheless, it is obvious that large areas of rural England cannot be adequately dealt with and safeguarded by means of urban schemes under the Act. Owing to the increased facilities for public transport services which open up the countryside to townsmen and new settlers, building developments are taking place suddenly and quite unexpectedly along arterial roads where bus services pass through rural areas, and in a great many cases unfortunate development has started in advance of any planning control.

This emphasises the importance of planning on regional lines which may now be discussed.

## III. THE OBJECT AND PROGRESS OF REGIONAL PLANNING.

English towns are no longer self-contained economic units as they have been in previous ages. And this is largely due to a process of specialisation that came into being during the industrial development of the last century. Most towns now have a particularised function, e.g., as industrial or commercial centres, as residential communities, or merely serving the purposes of recreation and retired leisure. Some communities, it is true, succeed in keeping a proper balance between men's various activities, and in this respect Norwich may provide an example; but there is an increasing tendency for many of the older towns to develop a specialised function and so become more dependent on their neighbours.

This condition of urban interdependence makes it almost impossible to obtain satisfactory results by considering the problems of a single town regardless of the adjoining region. Moreover, the facilities for rapid travel have not only complicated our economic organisation, but they have also produced almost a revolution in the social structure. The sociologist now finds a set of complex conditions that entail research over a large region in order to analyse the structure of society and social conditions in any particular town. To-day men work in the city of Manchester, for example—have their homes in an outlying suburb in Cheshire, and take their recreation at one of the seaside resorts. The "seven towns" in the Midlands are not only interdependent, but their tentacles are spread into the surrounding counties, even to the Cotswolds. Liverpool has its residential



suburbs as far afield as Southport, the Wirral peninsular and North Wales, while London workers have their homes and places of recreation scattered throughout eight counties.

These new conditions in the social and economic life of our cities have created the modern problem concerned with the relation between work, home and places for recreation, together with the transport system necessary to cope with the movement of population.

The object of regional planning is the solution of this problem, and the work is at present being undertaken by means of either:—

(a) Regional plans and reports, which are of a purely advisory nature, and which are intended as a guide to the constituent bodies who are at work on individual schemes under the Act of 1925, or

(b) Joint town planning schemes, which are statutory and executive: these are carried out by joint committee comprising representatives of all the local authorities and interested bodies within the area.

It is encouraging to report that more than one-quarter of England and Wales is now covered by regional schemes, either advisory or executive; many of the largest regional committees include representatives of thirty or more constituent authorities, and in the case of the Manchester district 96 authorities. The Greater London region, at present only advisory and having no executive powers, comprises 126 local authorities. This large and most important joint committee, covering a total area of 1,846 square miles, has as its chairman our President, Sir Banister Fletcher, with Dr. Raymond Unwin as the chief technical adviser.

#### IV. DIFFERENT TYPES OF REGION.

The questions may arise as to what constitutes a region suitable for a comprehensive scheme, and how should its boundaries be determined in order to give the maximum efficiency of execution and administration. As a broad classification there are two types:—

(a) Geographical and

(b) Economic.

As three examples of the first category may be given:—

(i) The Lake District, which includes the mountains and fells of Westmorland, Cumberland and North Lancashire; the boundaries here are determined broadly by physical features, but for planning it is divided into two sub-regions.

(ii) The West Sussex coast and Downs region, comprising the southern slope of the Downs and plain at their feet with its many coastal communities.

(iii) The Thames Valley in its middle and upper reaches, including the higher ground up to the watershed. This area is now divided into smaller regions for the purpose of planning.

The second category, of an economic nature, is the more usual, as examples:—

(i) The Lancashire industrial conurbation centred round Manchester.

(ii) Doncaster and district.

(iii) The South Wales coalfield: and

(iv) The East Kent region, which is of extraordinary interest as it presents the problem of how to exploit coal measures while still retaining the predominant use of the land for agriculture.

In the case of the new and existing mining areas the boundaries of the region to be planned depend very largely on the extent of the coal measures, but in other cases, in view of the decentralisation of industries now going on, there is a tendency to increase the area of regional schemes wherever the local authorities agree to join for combined action.

There are now in existence approximately 75 regional planning committees in England, of which about 20 have executive powers; also five regional committees in Wales of an advisory nature.

In addition to the type of region with boundaries defined by reason of physical features or industrial economy, there are several cases where a joint committee has been formed for the purpose of including an administrative county area, such as Gloucestershire, Berkshire, Oxfordshire and Hertfordshire, but up to the present no county committee has taken up executive powers, and it is probable that in many counties it will devolve on the County Council to take the initiative in cases where rural and urban districts have not taken action to prepare schemes for their respective areas.

#### V. THE REGIONAL SURVEY AND DEVELOPMENT PLAN.

No medical specialist would attempt to advise or treat his patient before a careful diagnosis of the patient's condition. It is equally important that no scheme for remedial measures or development of a region should be embarked on without exhaustive study of existing conditions. A preliminary survey is, therefore, a necessity, and although a considerable time must elapse before all the data is compiled and presented in graphic form, it is time well spent.

A great many admirable surveys have been prepared and published: they are on sale and in the libraries of the Royal Institute of British Architects and the Town Planning Institute: most of them have been prepared by members of one or both of these institutes.

As examples of surveys and matter that should be included, I cannot refrain from mentioning two: viz., the excellent survey for the East Kent region, prepared by Professor Patrick Abercrombie in collaboration with Mr. John Archibald; and another just published for the Bristol Region, by Professor Abercrombie in collaboration with Mr. B. F. Bructon, both members of the R.I.B.A. These survey reports



are models of their kind, both in their profound analysis of existing conditions and in the form in which their recommendations are presented.

Before focusing our attention on a county so largely agricultural as Norfolk, one may be permitted to outline the typical subjects usually investigated in a regional survey. They are as follows:—

- (1) Physical features, such as rivers, floodlands, uplands, woodlands and coastline.
- (2) The geological formation and surface value.
- (3) Distribution and movement of population.
- (4) Housing conditions together with vital statistics.
- (5) Occupations and industries.
- (6) Communications by road, rail and waterway, and traffic conditions by road and rail.
- (7) Open spaces, public and private, and facilities for recreation.
- (8) Water supply and public utility services.
- (9) Agriculture and allotments.
- (10) Features of special architectural and historic interest.
- (11) Natural amenities to be preserved.

In the case of regions containing mineral deposits, a special survey is required by an expert on these matters. Coastal defence works also require investigation where tidal action is changing the foreshores.

#### VI. NORFOLK: ITS REGIONAL CHARACTERISTICS.

We can now turn to Norfolk, and consider its main characteristics. Here is a county, the fourth largest in England, which has so far remained practically untouched by the industrial upheaval of the nineteenth century. Invasions, war and disease have modified but never radically changed the social and economic life of its people, for their stability and independence are founded upon that primary source of wealth—the cultivation of the soil. Norfolk's adherence to the agricultural tradition has saved it from many of the calamities that now threaten the industrial regions, even although the state of arable farming may be at the present time abnormally depressed. Unlike all the home counties, which are becoming increasingly exploited by London's suburbia, Norfolk has retained its independence and individuality and one can still travel across its greatest breadth for 67 miles and from north to south for 43 miles without passing through anything larger than agricultural villages or small market towns, of which there are such charming examples. Nowhere does the land rise to 350 feet above sea level, and hence the county is devoid of "striking" and "dramatic" features that delight the writers of popular guide books. Instead we can enjoy in the flesh the scenes so well presented to us by Crome, Cotman, Stark and others of their school. The landscapes of these artists epitomise, where words fail, the restful charm and beauty of those immense prospects over fen and broadland which are characteristic of this region: the delightful drawings

by Rowlandson of Norwich and Yarmouth faithfully represent them as they appeared at the close of the eighteenth century.

The scope of this paper does not permit any detailed information that might result from a survey in all its aspects. It will be sufficient to confine my remarks, firstly, to certain physical features which account for the distribution and occupation of the people, and which also determined the position of the chief towns and highways; and, secondly, to geological factors which account for the local building materials, and hence affect the character of the architecture.

#### (1) *Physical Features.*

Roughly oval in shape, the land rises gradually from the Channel coast to a low escarpment in the west and north-west corner. To the west of this higher ground lie the levels of Fenland reclaimed from the Wash, and now providing the richest pastures, yet below sea level for the most part. Part of the north coast is fringed by marshlands, which at Hunstanton give place to low cliffs of red and white chalk and the so-called "mud-cliffs" of Cromer. Bold hillocks 50 or 60 feet high of blown sand like miniature mountains fringe and protect the shores in the north about Blakeney and Cley which, with the marshes, form a natural reservation for bird life.

North-east of Norwich lies that delightful region known as *Broadland*, containing the well known freshwater lakes, at one time tidal estuaries. How they came into being is significant of the continuous changes in our eastern coastline. There the shingle and sand travel southwards by tidal action and the mouth of the river Yare has been repeatedly forced in that direction by the accumulated deposits of shingle: so was formed the great natural barrier between the sea and the marshlands, extending from East Caister to the south for five miles. This large area of 1,600 acres has thus been formed across what was once a large estuary during the Roman occupation. After the last Danish invasion had devastated Norwich at the beginning of the eleventh century, the bank became sufficiently consolidated for a settlement to be made on it and so the town of Yarmouth came into being. It was then separated from East Caister by channels which gradually became choked. As the tidal inlets became more and more restricted, the rivers were embanked during the dry seasons and the surrounding marshes converted into farmlands. The irregular hollows that remained of the old estuary held great sheets of water now well known as the *Broads*. Although still extensive, such as Hickling (578 acres) and Wroxham (92 acres) they are slowly being silted up by the rivers and reed growth.

Norwich itself undoubtedly owes its origin to its strategic position, at the head of this one-time estuary, for it was defensible by reason of its encircling water



except on the west side, where the rivers Wensum and Yare are separated by a ridge of high ground little more than a mile wide. There is good evidence that the site was occupied in Roman times, and quite probably much earlier. The rivers Bure, Yare and Waveney are still tidal for over 25 miles, which has naturally influenced the concentration of population in the Norwich district, especially before the advent of railways and motor transport. Including the Broads there are still some 200 miles of navigable waterways in this district.

Springs and water-bearing strata occur throughout the county and therefore the old village communities are fairly evenly spread over the whole region, but it should be noted that former generations wisely avoided the building of villages on the peat of Fenland, except where patches of silt and gravel occur. The fenland villages that now exist are not very ancient compared with those on the uplands.

The variety of the soils in Norfolk and the absence of any minerals as far as can be ascertained has caused agriculture to be the main industry, providing for roughly half the total population, and until quite recently two-thirds of the county consisted of arable land.

On the southern boundary around Thetford, one is in a district of primitive heathland which probably caused Horace Walpole to write of the "Wilds of Norfolk."

Out of the total population of some half a million, more than half is still fortunately distributed over the rural districts. And it is satisfactory to note that, according to the census returns and estimates of the last twenty-nine years, the total population of the rural districts shows a slight increase. Whether the present depression in arable farming will affect the movement of farm labourers to the towns is still a matter of speculation. The general distribution of population is accounted for not only by reason of the productive arable lands, but also because formerly several of the small market towns and villages between Norwich, Aylsham and Cromer had small industries of yarn spinning and weaving. In a few villages can be seen large windows, partly bricked up, which were for the purpose of giving light to a cottage loom. The Flemish merchants came over from Bruges and the Low Countries and many of them built houses in Norwich; so we find throughout the eastern districts surviving gable ends reminiscent of Flemish and Dutch architecture, and excellent examples of brickwork. The village of Worstead gave its name to Worstead thread, known all over the Empire; but gradually the village industries were concentrated in Norwich and organized on a more commercial basis.

The inland towns (apart from Norwich) mostly came into existence as convenient market towns

serving the surrounding farmlands. Such are Downham Market, East Dereham, North Walsham, Swaffham, Thetford, Attleborough and Aylesham. The provincial markets have declined since the improvement of communications, and Norwich has taken over their function to a great extent.

Some villages arose under the protection of ecclesiastical foundations or feudal strongholds, and of these, Castle Acre, built on a strategic site, by the little river Nar, is one of the outstanding examples. It has a threefold interest for the architect; first the castle site, and a few remains such as the mediæval double gateway which forms the focal point in the delightful approach to the village from the south; second, the village itself with its eighteenth century cottages built round an elongated green, and thirdly the ruins, remarkably well preserved, of the Cluniac priory. The late Norman west front is almost intact and the whole group of buildings is in a charming setting.

Of the towns along the coastline extending 100 miles, King's Lynn holds a wealth of interest for the architect, and is probably well known to most of those present. In my opinion it is by far the most fascinating town of any in the county outside Norwich. Its former importance in the economic life of the region may be realized from the account of Daniel Defoe, in 1722, who wrote that it had "a vast advantage in trade" with "the greatest extent of inland navigation of any port in England, London excepted.... By these navigable rivers the merchants of Lynn supply about six counties wholly, and three counties in part, with their goods, especially wine and coals, viz., by the little Ouse, they send their goods to Brandon and Thetford, by the Lake to Mildenhall, Barton Mills and St. Edmundsbury; by the river Grant to Cambridge, by the great Ouse itself to Ely, to St. Ives, to St. Neots, to Barford Bridge and to Bedford; by the river Nene to Peterborough; by the drains and washes to Wisbeach to Spalding, Market Deeping and Stamford" and so on.

Railways and modern transport have caused Lynn to decline, but the splendid houses of the merchants, and the churches are monuments to former prosperity, which was so dependent on the network of navigable waterways in the region. Fortunately, Lynn still benefits by trade with home and continental ports, and it provides the chief shopping centre for the north-west district.

Of the other coastal towns, Wells, Blakeney and Cley are ancient ports that have lost their trade since the reclamation of the marshlands, but for all that they have retained much of their original character by the use of local materials in contrast with the modern seaside resorts at New Hunstanton, Sheringham, and Cromer. To get the real atmosphere of Great Yarmouth, it should be approached from Breydon Water,



for then you may recall your Italian impressions and agree with Ruskin, who, writing of old Venice, said "you may be sure of this much—that for seven hundred years Venice had more likeness in her to old Yarmouth than to new Pall Mall: and that you might come to a shrewder guess of what she and her people were like by living for a year or two lovingly among the herring-catchers of Yarmouth Roads... than by reading any lengths of eloquent history."\*

As for the new Yarmouth, facing the sea, which caters for summer visitors, I will leave my architect friends to be the critics; I need only say it is by the old quays along the riverside, with their narrow "rows" containing the fishermen's homes that you find the real Norfolk character, for from these come the sturdy crews of the net-drifters and the mainstay of the Norfolk herring fishery.

#### (2) *Geology.*

It is unnecessary to go into details of the geological formation, although it might be mentioned that the Cromer forest bed series with its rich and varied remains of fauna and plant life have called for investigation by distinguished geologists from all parts of England and the Continent. It will be sufficient to say that the "white chalk" forms the foundation of the main part of the county. Its base, exposed on the cliff at Hunstanton, extends southwards along the borders of the Gault in the west of Norfolk, while the whole formation is inclined gently towards Norwich and Yarmouth, where on the coast its upper limit occurs about 500 feet below sea level.

"At Norwich the chalk foundations have been proved to a depth of 1,152 feet, and some further thickness is exposed in the adjacent hills."†

"On the Norfolk coast the chalk which appears at Hunstanton does not again form cliffs until we reach Weybourne. It disappears below the sea level east of Cromer to reappear for a short distance in the cliffs of Trimmingham."

The chalk has been largely worked for lime burning, for whiting and for its flints for the last 300 years: also mixed with "river-mud" it has been manufactured into Portland cement. Black flints have been used extensively for building and so give a charming regional character to Norfolk architecture. The old Bridewell by St. Andrew's Church in Norwich is a fine example of inlaid flint work dating back to the early fifteenth century. In the town hall at Lynn and in many church towers it may also be seen. At one time the British Army was supplied with Norfolk gun-flints from the Brandon pits.

The Glacial Drift, a paleolithic formation, overlies the chalk, and in east Norfolk the calcareous loam yields

a rich soil, and hence some of the best agricultural land in the county. Near Norwich this bed is known as Norwich brickearth.

In the Thetford district, the Glacial Drift is covered by strata of sand and gravel, so rendering this area of heathland unsuitable for profitable cultivation.

Under the chalk is the sandstone formation, and under that again is the Kimmeridge Clay, a blue-black material mixed with shale, which accounts for the bricks and tiles to be seen at Downham Market, Watlington and West Winch.

Brick, stone, flint and tiles are therefore the traditional building materials of the region, nor must we forget the annual crop of excellent reeds, so skilfully and charmingly worked by Norfolk thatchers that their fame has spread into almost every county of England, for these thatchers have passed on the secrets of their craftsmanship from father to son since the sixteenth century, which may be proved by parish and other records.

#### VII. NORWICH: ITS SPHERE OF INFLUENCE AND TOWN PLANNING SCHEME.

Norwich dominates its county to a degree seldom found in the capitals of other English counties. This dominance is due to its many attractions—economic, social and ecclesiastical. Moreover, its quite remarkable number of radial arteries link up the city with the whole region, and these radials are connected by an admirable number of circumferential roads within and without the city boundaries. This "spider's web" road system, together with a clearly defined central open space (the Market Place) provides a sound nucleus for all future developments. Also the dual interest afforded by the castle on its artificially created mound, together with the cathedral, enhances the silhouette of the city from distant view points.

The intimate connection between Norwich and its satellite towns and villages suggests that no plan for future development, however efficient, should be confined to the existing borough boundaries. Traffic, ribbon development and sporadic building by the speculative builder, do not recognise any such limits except as a boundary line on paper. One has only to study for a moment the map showing the excellent system of bus services that ply on every radial road from Norwich to realise that all land with road frontage on these routes has a potential building value. Time and cost factors are more important to-day than mileage in determining the areas where development may take place if land comes into the market.

It is essential, therefore, that some control over the region immediately surrounding the city should be obtained as soon as possible by a joint town planning scheme. Such a joint scheme might comprise the county boroughs of Norwich and Great Yarmouth and the rural districts of East and West Flegg, Blofield,

\* *St. Mark's Rest*, by John Ruskin.

† *Victoria County History of Norfolk*, Geological Sect. by H. B. Woodward, F.R.S.



Hemstead, Forchae and St. Faiths. This might be an executive committee under the Act, each local authority having representatives on the committee. The scheme would naturally incorporate the proposals already approved in the preliminary statement for the borough of Norwich, but it is also desirable that the Ministry of Health model clauses on the control of elevations should be included in the scheme. Much of the land in the above-mentioned area is purely agricultural, and it could be "zoned" on the plan as

the benefits derived from increased rateable values. It may therefore be more economical to encourage the growth of the adjacent towns and villages rather than add unduly to the size of Norwich itself, which already exceeds 120,000.

#### VIII. SUMMARY OF SUGGESTIONS.

For the purpose of defining the points for discussion, I venture to put forward certain suggestions relevant to the subject of this paper. These are:—

That the preservation of the countryside and towns



TOMBLAND, NORWICH

"undetermined" and building only allowed by consent of the authorities, or it may be possible to reach agreement with owners that the land may voluntarily be reserved for agricultural purposes so that any building development may take place round well defined centres of population instead of straggling out along the existing roads, which is not only wasteful and destructive of amenities but also reduces the efficiency of the highways for "through" traffic.

The present town planning scheme for Norwich appears to be admirable as far as it goes, but if any further encroachment is contemplated on its agricultural belt it should be borne in mind that extensions of the built-on area beyond that shown on the plan may possibly increase the cost per head of population for administrative and other services out of all proportion to

of Norfolk and their economic development may best be ensured by the following means:—

(1) The formation of a regional committee for the whole county, for the purpose of preparing a preliminary survey and outline plan of the county which would be a guide to local authorities in preparing their individual schemes of development. Such a committee would be of an advisory nature at first and would be representative of all the different interests and authorities.

(2) By the formation of statutory joint town planning committees to prepare schemes under the Act for:

- (a) The Norwich region, including Great Yarmouth.
- (b) Kings Lynn and neighbourhood.
- (c) The Sheringham-Cromer area.

(3) By the inclusion in all schemes of the existing



powers for the control of elevations, thus preventing undesirable building and encouraging the use of local and harmonious building materials.

(4) By county and borough councils making full use of their powers under Section 11 of the Petroleum (Consolidation) Act, in controlling the position, design and colour of petrol filling stations; also their powers under the Advertisement Regulation Acts.

(5) By the formation of a county branch of the Council for the Preservation of Rural England, whose particular function would be to report to those in authority all cases of threatened disfigurement. This branch should be of great assistance to the planning authorities in recording areas of special landscape beauty and all buildings of historic and architectural interest.

(6) By the local authorities making use of the R.I.B.A. advisory panels of Norfolk Architects to assist them in adjudicating on elevations of buildings submitted for approval under a town planning scheme.

#### IX. CONCLUSION.

In conclusion, I would call the attention of all those who will be responsible for planning this region, to an extract from the memorandum issued by the Board of Agriculture in 1926, which reads: "A national agricultural policy should aim at securing the two following

objects: (1) that the land should yield the highest economic possibilities in the way of food for the nation. (2) That it should furnish a basis of life and a reasonable livelihood to the greatest number of people."

It must be emphasised that the term "Town Planning" does not mean the urbanization of rural districts, but utilisation for the purpose to which they are best suited. In this Region it is a vital matter that fertile farm lands should not be cut up for haphazard building schemes.

During the next few days we shall see how the past life and history of Norfolk is visibly expressed in the architecture of Norwich and the surrounding region; spacious country mansions, whose owners for generations have been engaged in agriculture; delightful farms and cottages that came into being by unconscious artifice in the logical use of local materials; dignified town houses which suggest the growing wealth and the urbane fashions of the eighteenth century, and particularly the excellent examples of church buildings that record the continuity of effort and zeal of Norfolk men. Set against a background of agricultural England they constitute a precious heritage that is well worthy of study and preservation.

### Discussion

#### THE PRESIDENT, SIR BANISTER FLETCHER, F.S.A., IN THE CHAIR

The PRESIDENT: I am sure we are all delighted with the admirable address which Mr. Harding Thompson has given us to-day, and it will add greatly to our enjoyment of this Conference during the next few days. As regards the discussion I should like to refer to the fact that we have a number of official delegates from overseas here to-day. We have Mr. Rodney Alsop, the Vice-President of the Royal Victorian Institute of Architects and a delegate of the Australian Institute and also of the Royal Victorian Institute of Architects. We have Mr. D. W. Ditchburn, President and the delegate of the Indian Institute of Architects; Mr. E. G. Cohen, Past President and delegate of the Royal Institute of Architects of Western Australia; and Mr. Gordon West, honorary treasurer of the Royal Architect's Institute of Canada and Vice President of the Ontario Association of Architects. I should like, and I think it would be your wish, that we should hear from these delegates if they will kindly take part in the discussion, and at the same time give us the messages which I am sure they will wish to deliver on behalf of the important bodies they represent. We have also with us two members from overseas whom we are delighted to welcome. One of them is Sir John Sulman, who is, I think, our senior member in Australia and famous as a pioneer of town planning in the Dominion. And we have with us Lieutenant-General Sir Talbot Hobbs, equally welcome to us as a

past President of the Architects of Western Australia and one of the Commanders during the war of the Australian Army Corps in France. He is, I think we must all admit, the most distinguished soldier-architect in the world. Then, in addition to the members of our own conference, we are fortunate in having with us this morning a number of representatives of Municipal and County Authorities of Norfolk and Norwich. They are keenly interested, of course, in Mr. Harding Thompson's paper and in problems of Town and Regional Planning, and I hope they will take part in the discussion. The only thing I think I should mention is that we have to bring this meeting to a close at 12.45, so that if everybody is going to speak we shall have to be very much to the point. I should like to call upon any of these gentlemen—in order, perhaps, Mr. Rodney Alsop.

Mr. RODNEY H. ALSOP [F.]: I wish, first of all, to convey to you, the R.I.B.A., the good wishes of the Institutes I represent—the Australian Institute of Architects and the Royal Victorian Institute. We feel that these meetings do more for us than almost any other thing the R.I.B.A. does. We appreciate the lectures such as we have heard this morning, the good feelings meetings like this promote, and the experience of centuries of tradition that the Old Country is able to put before us.

Mr. E. G. COHEN: I need not say what a pleasure



it is to be able to attend a Conference of this sort, and to meet fellow architects not only from England, but from all other parts of the world. We in Western Australia consider ourselves extraordinarily loyal to this country. I don't think you will find any State in the world more loyal than Western Australia; and I assure you that the loyalty of our Institute, as a daughter Institute to the Mother Institute, is exactly the same as our loyalty to the Mother Country. I have found it very interesting to listen to the paper this morning. In Western Australia we have our Town Planning Act; it was only passed two or three years ago, and we are getting to work. Our conditions are very different from those existing here. It is interesting to learn that amendments have taken place to your Act of 1909, which appear to give you greater power over places which have already been built. We have full provision made in our Act to deal with those matters.

Mr. GORDON WEST: When I announced at home that I was coming across the water again this year, our bodies there were, of course, quite insistent that I should make contact with the R.I.B.A., and I can readily see that this Conference is one of the best places for getting in touch with people. Canadians, I think, are supposed to make contact easily, but I know I would much sooner meet my professional brethren at such a Conference as this than talk with them at official meetings. Sometimes you are able to get much farther. As Imperial matters were very much to the fore in Canada when I left, that may have influenced the fact that they were anxious to be represented here. I feel very much at home, for I have just left Toronto in the throes of a controversy on Town Planning, and a big municipal election has just been fought on Town Planning. It has been interesting to hear the subject brought up here, and I hope to get some side-lights on it.

Sir JOHN SULMAN [F.]: Mr. President, you have mentioned that I am perhaps the oldest architect in Australia interested in town planning. I think I may claim that. It is just 40 years since I really started an active movement in Australia for town planning. It was at a meeting of the Australian Association for the Advancement of Science in Melbourne—I was one of the founders of that Association—that I broached the question of the laying out of towns. I had become interested, before I left England 45 years ago, in town development. There were two features which interested me and they were these: firstly, the excellent planning for traffic as seen in Paris; and secondly, that as a young man—you have all been young men, and you know that when you start practice you are glad enough to get any kind of a job to bring a little money in—I had to go down to the slums of London and value dilapidations after very

long leases. It is not a very pleasant job, as those of you who have done it know. The conditions of life among the poor there simply hammered themselves into my mind. I thought it was an absolute disgrace to civilisation. Even the horses and pigs of wealthy people in the country were better housed. I was not able to do anything in England in the matter before I went to Australia. I then found, in that land of big spaces and unlimited areas, that some of the conditions I had noticed in England, and which you are now grappling with, were beginning to show themselves there. That started me on my campaign. The pressure on us is not so great as it is on you, but I am glad to say that we do realise now that, throughout the continent of Australia, town planning is a necessity for the proper development of our towns and our regions. Mr. Cohen, of Perth, Western Australia, has mentioned the Town Planning Act they have. I had something to do with getting it, in this way: I had been in touch with all the cities and had been urging them to get an Act before they got a Town Planning Commission, and Perth adopted my advice; whereas Melbourne has spent thousands and thousands of money on a Commission but they have not yet got an Act. When I was there six months ago I said "Go for it for all you are worth or your plan will be absolutely useless in the course of a few years and you will have to do the work all over again." I congratulate you here in England. You have got, not only the Town Planning Act of John Burns, but you have revised it to meet difficulties as they arose. In my own State of New South Wales we have not got an Act yet. The Acting-Premier promised me two years ago to have an Act put through in the next session, the Premier being ill and away. When he came back there was an accumulation of arrears. We gave him a public luncheon and he said he was very sorry but there was such an awful lot of work he could not do it for us. I said, "Look here, put it through the Upper House first. This Act will hit vested interests and if you can get round those representing vested interests you can easily get the Act through in the Lower House." He said, "I am going to give the Upper House all they can deal with. I am going to reform it." He brought in a Bill to abolish it and put it on a new basis. Now I have the promise that if they are returned to Parliament at the next election, which is coming on in a week or two, we are to have an Act for New South Wales. I did get an Act through in 1919 as far as second reading, in the Lower House, but that was as far as we could get. In conclusion, I do want to say one or two words in regard to the very able, lucid and most interesting address by Mr. Harding Thompson, which has not yet been mentioned. He has given me as a stranger a general idea of the country which one could not have got otherwise; its physical as well as its





CLIEF CHURCH

artificial conditions, the buildings and roads that will guide you in forming the Regional Plan that you are contemplating. There is one point in Regional Planning which has struck me as a difficulty that has got to be met. Touring round London I found the by-pass roads excellent in every way, but by-pass roads being such fine avenues for traffic the frontage is jumped by commercial firms who put up factories and are spoiling the country districts. We tried out the same thing in New South Wales, but we had the same difficulty there. How are you going to deal with it? I should like to know from your experience if you have any suggestions by which the country aspect of the new roads can be preserved as one of the amenities of the district through which they pass. It seems to me you can have no reform without its attendant evils, and that appears to be one of the defects to be met. The way in which agricultural land is preserved as belts around Letchworth and Welwyn is a most excellent arrangement, but is not possible everywhere, and if anyone can give me information on the difficulty of preserving the amenities of new main roads I should be glad to know, because I want to take it back and make use of it in Australia. \*

\* Ed.—Mr. Harding Thompson referred Sir John Salzman to the first report of the Greater London Regional Planning Committee in reply to his question, but this can only apply where a comprehensive Town Planning Act is in force. Sir John, therefore, wrote the President suggesting differential rating, which would be applicable to New South Wales but not to this country, as agricultural land is already derated.

The PRESIDENT: Are there any gentlemen, municipal or county representatives, here who would like to say something on Mr. Harding Thompson's paper? While they are thinking about it I would like to say we have a long list of possible speakers, amongst whom are Mr. Stanley J. Wearing, President of the East Anglian Association of Architects, to whom we owe very much for our meeting here; Mr. C. H. Strange, Mr. Stanley C. Ramsey, Professor Abercrombie, Mr. H. C. Hughes, Mr. R. J. Lovell, Mr. E. R. Jarrett, who, I believe, has recently travelled in Germany, Mr. Thomas Rayson, of Oxford, who has done so much for the preservation of that old city, and Mr. G. Hastwell Grayson, of Liverpool, whom we all know to be keenly interested in the preservation of rural beauty. If they will give us the benefit of their opinions shortly I shall be glad if they will get up on their own account. I hope bashfulness will not prevent us having the benefit of their opinions.

Mr. C. H. STRANGE [F.]: I should like to express in a word my appreciation of the very able paper we have listened to this morning, and say, for the benefit of those who are not aware of what we are doing in the South-Eastern part of England, that in connection with our local Allied Society we are forming Advisory Panels of Architects for local Town Planning Committees. I have the honour of serving in that capacity with another architect a Rural District Council, and



we have, month by month, the plans submitted to us. We attend at the District Council's offices and we see the plans which are to be submitted to the Council at their meeting a day or two following. We can't do very much, but we are able to make suggestions which we find are actually adopted, and readily adopted, by the builders or owners, and in that way we are able to exercise a certain amount of improvement in the buildings that are put up. It is just a beginning and we don't know how far the idea will develop. But in this part of the world you don't know anything of the problems we have. Driving down to Norwich, as I did yesterday, and seeing all the beautiful unspoiled country—why it makes one's mouth water. Go through Kent, Sussex and Surrey and see the rapid rate at which the countryside there is being spoiled by indiscriminate building. We are endeavouring to do something to stem the tide.

Mr. STANLEY C. RAMSEY [F.]: We shall not realise how good Mr. Harding Thompson's paper is until we see it in print. It is too full of interest to take in at one sitting. There is just one point attaching to it which I would like to stress, and that is the example which I feel Norwich affords us, in a very strong degree, of the effect of a district on a town. The regional architecture that you see in the surrounding towns and country villages is exemplified in Norwich itself. The beautiful apricot-coloured cottages with pantile roofs, together with buildings of Georgian brickwork and mediæval flint and stone peculiar to these Norfolk villages, are all to be found in a glorified form in the city itself. Norwich is the city of the region and in it the regional architecture is strikingly exemplified. This is one of the lessons, we, as architects visiting here, can appreciate and benefit from. One of the things that has spoiled, and is spoiling, England, is the thoughtless work of the speculative builder. He is not so unregenerate a person as some would have us believe—I have great hopes of him in the future—but the point about even the best of his work is the deadly dullness of it, chiefly I think because his buildings have no regional significance. Everywhere you see the same type of Golders Green villa, in the London suburb, the country town and around our coast—from Land's End to John o' Groats.

Mr. E. G. BIDEWELL (a member of St. Faith's Rural District Council): As a member of a District Council, and also of the County Council and a member of the Regional Town Planning Committee, I feel I would like to say how I appreciate your welcome to the Conference. The words of Mr. Thompson will be helpful to me especially on the Committee when we meet in future. Just round Norfolk we have been really spoiling the beauty spots of the good old country by different builders and owners erecting all sorts and conditions of bungalows, houses, etc. St. Faith's

District Council have their eye upon these things. We made up our minds to try to alter them and we have formed a committee in conjunction with the County Council to preserve the beauty of our countryside.

Mr. H. C. HUGHES [F.]: With reference to the speaker's and Mr. Ramsey's words about regional architecture, there are some parts among our coast towns where you can get building done in a pleasant, primitive way. In one village I know of there is a fisherman who takes a motor-boat down to the beach, brings up shingle, gets concrete blocks, gets tiles from the old Holkham brick and tile works, and builds in a most extraordinarily traditional way without any trace of the modern speculative builder's methods. It is very pleasant to see that sort of thing. I do think Norfolk is fortunate in having a well-established panel of architects, and I don't think many people throughout the counties do know about these panels. Norfolk has one, and I believe it has done very good work. Panels are rather peculiar in this way—they have all sorts of people in them, not only architects, so you get the special predilections of architects tempered by the common sense of a good many other people. That point is worth mentioning because a lot of people think architects have odd views. I think that a definite danger of panels is that too much attention may be given to regional architecture and admirable sympathetic modern work is sometimes discouraged and turned down.

Mr. FRANCIS HOOPER [F.]: Am I not right in saying that on looking at the map of old villages at home and on the Continent we find that many, if not most, must have started by ribbon development? The back land is in some cases surprisingly beautiful, but little of this is to be seen. To-day we complain that this is recurring upon our new, and often really fine, arterial roads.

The economic explanation is that we have created temptations without affording facility for escape. Would it not mitigate and help to relieve matters were the engineers, at suitable intervals, to construct byways?

People who travel by train or tram may only get on and off at definite points. Why not have by-ways at definite points and watch the results? In many districts zoning powers are already existing to control development.

All here are interested in child-life and are concerned for the welfare of those who are to follow us. We desire their safety, and too many are compelled to walk along highways increasingly dangerous.

Should not they have little colonies set back two or three hundred yards from the busy highways, forming village centres, with shops, places of worship, schools and play spaces?

Is it not possible to induce the authorities and their



able engineers, already doing so much to open up country, to do something more to reduce the temptation to build on the front land, and so preserve its natural beauties.

Mr. T. RAYSON [*F.*]: I should like to add my thanks to Mr. Harding Thompson for his paper. I should like to say, too, that it is a long time since I heard words on this subject which did not include some request for compulsory power. There is no doubt, I think, that the results of persuasive efforts on people who wish to build are proving highly satisfactory, at least in certain districts. It is quite certain, too, that unless the desire for beautiful buildings comes from the people who want to build, no amount of compulsion will obtain the desired result. In advising a certain council, from experience I am giving this advice: I would recommend one thing on the part of the advisers—that they should never turn down a scheme proposed unless they do two things: one is to give perfectly adequate reasons for turning it down, and the other is to suggest a desirable substitute. In Oxfordshire we are completing under a very capable surveyor (Mr. T. Thompson) a series of drawings showing proposals and buildings substituted. The result is astonishing. Furthermore, the Regional Planning Committee is proposing to issue a pamphlet not only to speculative builders, but to everybody likely to deal with building, guiding them on points which they should bear in mind. The trouble with this matter is mainly neglect. It is not a matter of difference of opinion. In Oxford, for instance, a well-known modern building has been erected, and has been recommended by influential members of the Oxford Preservation Trust as being a fitting model to be followed in all future buildings in that particular neighbourhood. The architects have considered the statements made and have, very mildly, and very sympathetically, without the slightest malicious feeling or intent, lodged a protest with the Preservation Trust against the recommendations made. I mention that because it just brings out a very interesting aspect of a difference of opinion about what is desirable and what is not. That is not the trouble with this countryside. The trouble is neglect. That is the point I wish to emphasise.

Professor PATRICK ABERCROMBIE [*F.*]: Mr. Ramsey has said that Norwich is the capital of this region. It is the capital of the connected system of the county as well. I don't know any county where you have such a radiation of roads leading up to a place as you have to the capital of East Anglia. That is a great advantage, artistically and physically, when you are dealing with a region that has a focal point. It is much more satisfactory to deal with practically one definite centre rather than a vague area. There is another point I would mention which I think will

be of considerable value in considering the future of a large area of country—the question which has been discussed in the press lately of national parks. It appears that East Anglia is deficient in wide natural wild stretches of unsophisticated country. There are certain heathlands, but there does not seem to be anything on a large scale. In the north we have more than we know what to do with. You have the Broads here, but those are of rather a special character, and it is not everyone who wants to spend their time on water entirely. There is an interesting suggestion put forward which I think might be considered. There are large areas afforested in the neighbourhood of Thetford. I rather gather that the land is not of a very high value from the agricultural point of view. The suggestion was that something might be agreed in conjunction with the Forestry Commission in afforestating open spaces, such as you have in the great State forests abroad. You might approach the Forestry people and ask them to leave avenues or footpaths and make the areas accessible to the public. We all realise that artificially created forests are not so attractive as natural woodland, but I think it is possible for something to be done in regard to the open spaces in this region with the gigantic schemes for afforestation in some parts of the less valuable agricultural country. It is very interesting to see the panel movement—the voluntary advice progressing. We hear these panels spoken of on every occasion in places that are finding them helpful from the point of view of the local authority. It is quite right that local authorities should be afraid of rustic compulsory powers, but this guidance which is offered before the actual drawings are submitted to the Council for their approval, in conference with the people who are proposing to build, does seem to be the best way of starting a movement throughout the country for dealing with architectural control. It is not too bureaucratic or drastic if approached in that manner, and I hope we shall hear that something is about to be done in this region.

Mr. J. A. KIDD: As a member of the Norfolk County Council I would like to thank Mr. Harding Thompson very much and say how interesting his paper has been. One point strikes me particularly. He advocates that regional planning systems should be large. When we formed the planning scheme we have here the general opinion was that it should be kept as small as possible. We have so much agricultural land between Norwich and Yarmouth, and on the other side of Norwich as well. I should like to see this regional planning extended as far as Yarmouth, for in these days of quick and rapid communication you will soon have people living on the banks of the Broads, as they are doing now to a small extent.



Mr. A. YOUNG [A.] : It would be very interesting to hear something about footpaths and our villages being placed away from the main roads.

Mr. R. B. WALKER [A.] : For several reasons, Mr. President, I feel the greatest pleasure in having had the opportunity this morning of hearing Mr. Harding Thompson's excellent paper—one, the purely personal reason of once again, in Mr. Thompson, meeting an old friend after an interval of years, and another in revisiting Norwich within a few days of my return on leave from town planning work in West Africa. I am having the experience of seeing scenes, familiar to me through the years which I spent in Norwich as the Technical Adviser on town planning matters to the Norwich Corporation, afresh through the eyes of an overseas person. In common with most people who return from the tropics, I so appreciate what a wonderful green and pleasant land this England of ours is, that it is, as it were, a canvas upon which a beautiful picture has already been painted, and that any form of development are spots of colour, maybe the greys and reds of Norfolk flints, bricks or tiles, placed upon the background of green spots, to be handled with the greatest care, as any addition to an existing picture must be. One ought to avoid looking in a general way upon all land as potential building land. I mention this particular point because I do not think I am divulging any secret when I recall that the attitude of the adjoining local authorities a few years back, at the time I was Town Planning Officer here, was "Norwich has some 6,000 acres of unbuilt upon lands within its boundaries, wait until that is built up before talking of Regional Planning." I am glad to realise I was able at that time to sow the seeds of regional work and that to-day those authorities realise now fully that the subject covers a far wider field than providing for the mere building of areas, but all the many important points so well outlined in Mr. Harding Thompson's paper this morning.

The PRESIDENT : The last speaker, Mr. Walker, it may interest you to know, is now from West Africa, but he was for a time in the Town Planning Department of the Norwich Corporation. I have also omitted another Dominion Member, Mr. T. B. Wightman, of Queensland.

Mr. T. B. WIGHTMAN [F.] : As a Past President of the Queensland Institute I convey greetings to Norwich. I congratulate Mr. Thompson on his very excellent paper. Being an overseas member, I am not in a position to criticise, but I can tell you something of what we are doing in Queensland. We have registration for architects there now. We also have a Greater Brisbane scheme in which we have amalgamated with four towns and a dozen shires, so that Brisbane is probably one of the biggest towns in the world. It is 30 miles in diameter; it is not actually a

circle; it has its regular town planning; but it covers a very considerable area. The City Council is administered by one town clerk, one city engineer, one city architect, and one city planning officer. It is four years since the scheme was consummated and it is the officer's job to prepare a comprehensive plan of the city and plan the whole area in such a way that we cut it into business, residential and trade sections, with special provisions made for noxious areas. Ultimately the idea was to get into these noxious areas trades which are a nuisance in residential districts. We get them into one area or several areas spread about the town. We are rather suspicious in Queensland of voluntary committees that adjudicate on plans. We have to submit them all to a professional man appointed by the City Council, and architects in submitting plans to the City Council have not only to get them approved by the city architect but also by the city engineer and the town planner. So you see we have quite a number of officials to run through, but we find through doing it we cannot get away with anything, so to speak. I thank you very much for the opportunity you have given me of making a few remarks.

The PRESIDENT : Perhaps one or two of the local architects of Norfolk would like to speak.

Mr. STANLEY J. WEARING [F.] : In case it might be misconstrued if a local architect did not rise, I do so, but am afraid I have no constructive criticism to offer. One member of our City Council, Mr. J. Owen Bond, is an architect, and a member of our Association. He is chairman of the Town Planning Committee, and we feel that so far as the City of Norwich is concerned we have someone who is doing his utmost to give to Norwich all that town planning can give. The only other item I should like to mention—one that has arisen from the discussion—follows on Mr. Strange's remarks, and that is, how architects can help to attain what we are so anxious to, viz.: the control of elevations which are appearing, and are about to appear, on our roadsides and lanes. It is a most desirable object, but it is one that appears most extraordinarily difficult to bring about. Mr. Strange has told us that he and other architects attend at Council offices to inspect and advise on plans which are deposited. One can foresee very nearly having to close one's office doors to attend to this voluntary labour. This does not mean that we shall not struggle to realise those ends, but the many extraordinary difficulties involved are obvious. Some such control will have to be adopted in one way or another if we are to help in beautifying buildings which are cropping up on all hands. The local Association has been approached about it and we have expressed our willingness to do what we can. We have not been put to the test yet, but are waiting for the opportunity, and I am



sure that I can say on their behalf that when it comes along we will do our best to meet it.

**The PRESIDENT:** It is my very pleasant duty now formally to move from the chair a vote of thanks to Mr. Harding Thompson for his remarkable paper. I think we may call it remarkable because he has condensed such valuable information and such valuable suggestions into a short space of three-quarters of an hour. We owe him a great debt of gratitude for the trouble he has taken in compiling this paper and giving us this interesting information. I propose a vote of thanks by acclamation for his paper.

**Mr. HARDING THOMPSON:** I feel very grateful for the various expressions of thanks accorded to me this morning. I need only say I enjoyed writing this short paper, which is nothing more than a mere outline survey, and I have also enjoyed going about Norfolk and noting with my own eyes the present conditions. The difficulty in condensing a great deal of matter into a short space is that so many of you know everything there is to be known about Norfolk and Norwich, and there are a great many people from overseas who know nothing about it. The difficulty was to strike the happy medium between those two sections. Replying briefly to one or two points raised by members: the member from Western Australia—it is quite true that the Town Planning Act of 1925 does not give us power to plan built-on areas, with very few exceptions where it is necessary to do so to make the scheme more efficient, and also if the buildings are of historic interest. Sir John Sulman asked how we could avoid ribbon development. I think he will find the best answer to that in the First Annual Report of the Greater London Regional Committee, of which our President is chairman. It is mainly to be avoided by means of town planning measures as suggested by Dr. Unwin in his Memorandum. Mr. Hughes referred to the admirable use of local materials in a village in North Norfolk. I can understand his reasons for not mentioning the name of the village. It is a delectable village and he has built a delightful place there for himself, in the local manner. The builders there are doing very good work in using local and inexpensive materials—concrete blocks and bricks and other materials of that sort. It is on the north coast and I was there on Sunday, but I will not disclose

the name of the village. Mr. Hooper's remark that ribbon development is not a modern tendency is true. We have always had it, but the communities were so small that, as it took place, it was in accordance with local traditions; the tremendous problems which face a modern community, ten or fifteen miles across, did not arise then. I thoroughly agree with Mr. Rayson in his experience in the Oxford Region that advice and suggestion in the control of elevations are better than compulsion. Nothing can be done by compelling people to build in a certain style, or to use certain materials, but a great deal can be done by a little preliminary suggestion. It has been found with some of the Allied Societies' regions that local builders got to know the sort of materials that are favoured and the task for the Advisory Panel became easier in consequence. They do want to build in the right way and probably the task of the advisers on elevational design will be easier as time goes on. Professor Abercrombie suggests that Government afforestation areas have possibilities as public reservations or parks, although I should hardly think that the area covered would be sufficiently big or sufficiently attractive to be chosen by the Committee on National Parks. It is, however, always encouraging to see trees planted and not trees cut down. I was very pleased to see a member of the County Council here who agrees that the area cannot be too big for which Regional Planning should be made, as long as it is dealt with in outline. Mr. Young mentioned the question of footpaths. I don't know whether you have compared the 1 inch Ordnance Map of Norfolk with those of other counties, but Norfolk is extraordinarily lacking in a system of old paths compared with some of the Midland and Southern counties. I don't know why it should be so, but probably it is because of the topography of the country and the great number of small by-roads which avoid the necessity for footpaths. Many of the county roads could be vastly improved by having public footpaths on the far side of the hedge to keep people off the traffic road. And undoubtedly a survey of all the existing footpaths where there is a public right of way would be most valuable and of great assistance to the County Surveyor. The paths on the maps don't necessarily indicate a public right of way, and therefore that should be inquired into wherever possible.

## The Conference Banquet

**T**HE Conference Banquet was held in St. Andrew's Hall, Norwich, on Friday, 20 June. The President, Sir Banister Fletcher, F.S.A., was in the Chair.

After the loyal toasts, Mr. SYDNEY KITSON (Honorary Secretary R.I.B.A.), in proposing the

toast of the City of Norwich, said: Nearly a hundred years ago a dinner was held in this hall in honour of St. Blaize, the patron saint of the woolcombers. Speaking at this dinner, the Norwich artist, John Sell Cotman, described his native place as: "this fine old city, venerable in its various remains



of antiquity, and beautiful in its surrounding scenery; scarcely to be equalled in its quiet way by any city in the British Empire." To an appreciative stranger, speaking in this same hall nearly a hundred years later, it seems that Cotman's claim holds good to-day, and that the intervening years have but added to the interest and charm of Norwich.

Your cathedral equals in architectural interest any cathedral in England; although some of those who have come from blameless drawing boards are surprised to read that the original architect of your cathedral was—untrue to type—a reformed rake. In the hands of your present Dean, however, its fabric is assured, for he is acknowledged to be an expert in ecclesiastical architecture. Your great castle seems to have been planned with a prevision which is rare—even among architects—eight hundred years ahead, as a perfect setting for the Lord Mayor's Reception which we were privileged to attend last night. Your mediæval guild-hall and the old churches, with their exquisite flint work, which meet one at every turn, are a delight to the eye. Your sober and sensible eighteenth-century brick buildings have been described by Mr. Stanley Wearing in his book on *Georgian Architecture in Norwich*. The great Roman Catholic church of Gilbert Scott the second—the gifted father of a still more gifted son—is one of the outstanding buildings of the nineteenth century. Your various housing schemes, which have been planned in recent years around this city of gardens, are among the best in the country. Small wonder, then, that in such a city something happened which happened nowhere else in the history of English art, and that a school of local painters arose to record the picturesqueness of the streets of Norwich, and the charm of the surrounding landscape. To many who visit the National Gallery, the *Mousehold Heath* of John Crome is one of the most sincere and most beautiful landscapes ever painted by an Englishman. Unfortunately, these Norwich artists did not meet with the recognition which their merits deserved, because, during their lifetime, the staple trade of the city, the wood industry, was transferred by the aid of Old King Coal to the West Riding of Yorkshire. No school of artists corresponding to the Norwich school has as yet arisen in the heavy woollen district of Yorkshire, although Old King Coal and not Old Crome has painted its buildings and landscape with a uniform coating of soot.

Owing to the enterprise and resourcefulness of its citizens, the trade of Norwich soon revived, and now your industries are as various as they are flourishing. They range from portable buildings to ladies' stockings. Nor must it ever be forgotten that Norwich is the headquarters of a club which has more lunching and dining members than any club in the world. Its

president is your titled fellow-citizen, the Baron de Buns. It seems almost incomprehensible that his portrait has not yet been added to the gallery of portraits of Norfolk worthies on these walls. Another portrait is missing—that of Mr. Dormer, the type of those shrewd men of business who have made the name of Norwich famous in banking and insurance circles throughout the world. His portrait has already been drawn, to the delight of thousands of readers, by Mr. R. H. Mottram, the secretary of the Norwich Society.

My Lord Mayor, and—after witnessing that scene of superb animation at the regatta on the Norfolk Broads this morning—I would say, my Lord Mayor and Commodore, and you, Mr. Sheriff, may I, in coupling your names with the toast of "The City of Norwich," end as I began, by quoting words which have been spoken in the past in this historic hall? When, some 350 years ago, Queen Elizabeth visited Norwich, she was, we are told, sumptuously entertained—though she could not have been more sumptuously entertained than we architects have been entertained here this week. During her visit she called to the mayor in this hall and said to him: "Master Mayor, I have laid up in my breast such good will towards your city, as that I shall never forget Norwich." My Lord Mayor and Mr. Sheriff, I wish to associate my colleagues and myself, wholeheartedly, with these words of the Virgin Queen.

The LORD MAYOR OF NORWICH (Mr. H. Harper Smith) responded. He said:

The warmth with which you have acclaimed the toast of the City of Norwich is evidence, I hope, of the fact that you feel you have been amply justified in the choice of our ancient city as the venue of your Conference. You are now drawing to the end of what we hope has proved to be a memorable Conference, and you must be in possession of almost innumerable impressions gained throughout your crowded programme. As you depart to your many different destinations, and these impressions begin to sort themselves out, may your recollections of Norwich be very pleasant ones.

You have been shown as much as possible in the time at your disposal, but it would be idle to suppose that you have even begun to appreciate fully the many treasures which are to be seen in our city and county. Mr. Kitson has been most complimentary, and I thank him for his remarks on our housing schemes, and the compliment paid to our local novelist, Mr. R. H. Mottram.

We in Norwich are proud of our city, and, we believe, justly proud, for men of widely different interests have united in singing its praises throughout its long history. Sir John Harington, writing of the city in Elizabethan times, said: "I should judge this city to be another Utopia, the people live so orderly, the



streets kept so cleanly," and his verdict has been confirmed by such writers as John Evelyn, the diarist, Lord Macaulay and George Borrow, whose eulogy of "the fine old city" is familiar to all readers of "Lavengro."

And it is not only of our city's antiquities that we are proud. These have been described to you in your handbook and by your guides. I would remind you of some of the present-day factors which con-

reference yesterday, is equally well known. Situated in the heart of the great agricultural county of Norfolk, the city is one of the largest centres of the agricultural industries in the country.

As a holiday centre Norwich has many facilities to offer the tourist. In addition to the many treasures to be found within the city itself, it forms a most convenient starting-point for the many healthy and bracing resorts of the east coast, and it is also within



ELM HILL, NORWICH

tribute to the amenities of Norwich. For many centuries the weaving industry made our city prosperous and busy, and when that industry declined, fresh ones were introduced, and to-day Norwich-made products are known and used throughout the world. Who has not heard of Colman's mustard, and of the other products of the famous Carrow Works? Norwich shoes are worn in many different parts of the earth, and Norwich engineering products are in increasing demand. In a different sphere the name of the Norwich Union to which your President made

easy reach of that unique stretch of Norfolk Broadland, some of which some of you have seen to-day, which provides an ever-increasing number of visitors with their ideal holiday.

Many visitors are attracted to Norwich by the performances of the Norwich Players at their Elizabethan playhouse, the Maddermarket Theatre. Under the leadership of Mr. Nugent Monck, whose genius as a producer is known far beyond the confines of this city, these players produce each year a splendid repertory of plays, and their productions have been so



successful that on a number of occasions they have been copied elsewhere.

Our Triennial Musical Festival, of which the 33rd will be held this year, to be held in this Hall next October, is another attraction which draws many people to our city. Inaugurated in 1824, it has had a most successful history, many of the most famous musical artists having been heard in the city at various times and many famous works having been tried out for the first time at our festivals.

I would now draw your attention to some of the pictures around these walls. There is a Gainsborough which the Americans very highly appreciate and want very badly, and a little to the right of that is one of Nelson, said to be the only full-length portrait of Nelson extant. On our right here we have portraits added within the last hundred years. The middle one is the father of our Lord-Lieutenant, who entertained you yesterday, Mr. Jeremiah Colman; there is Sir Harry Bullard, and, farther along, Mr. J. H. Tillett—three Members of Parliament during the last forty or fifty years. There is also one of the first Lord Mayor of Norwich.

As further evidence of the fact that we are keenly alive to present-day needs, I would remind you that we have in Norwich a very flourishing Aero Club, which has trained a number of pilots, and is widely known up and down the country. No opportunity will be lost by this very alive Club of making Norwich increasingly important as an air station.

I cannot conclude this brief summary of some of the amenities of our city without referring to the excellent work which is being done by the members of your Branch Association in Norwich. We have in this city some twelve Fellows of your Institute, in addition to numerous Associates and Licentiates, and the work which they have accomplished in this city and also in other places represents a very fine achievement. As a practical expression of their interest in, and enthusiasm for, the preservation of historic Norwich, they took an active part in preventing the demolition of some houses in that most picturesque corner of Norwich—Elm Hill. In 1926, Mr. A. R. Powys, the Secretary to the Society for the Protection of Ancient Buildings, and an Associate of your Institute, lectured in Norwich on "The Harmonious Development of Ancient Buildings," during the course of which he urged the citizens to press for the restoration of the Elm Hill houses. Being a practical man he was armed with particulars regarding cost, and showed that it would be considerably cheaper to repair the old houses than to demolish them and build new houses on the site. Fortunately, by the co-operative efforts of the Norfolk and Norwich Association of Architects, the Norfolk and Norwich Archaeological Society, the Norwich Society, and other interested people, the Elm

Hill property was saved, and a considerable sum of money was expended in restoring the houses. So it is that Elm Hill remains for you to-day as one of the best specimens still existing of a mediæval street.

Your President has handed to me a piece of paper just given to him. It reads as follows:—

"On the occasion of the Conference of the Royal Institute of British Architects at Norwich, the following resolution was proposed by Mr. T. R. Milburn and seconded by Lt.-Col. H. P. Cart de Lafontaine (Members of the R.I.B.A. Council) in the Strangers Club, Elm Hill:—

'That a cordial vote of thanks be accorded to the City Authorities, the Architectural and Archaeological Associations of Norfolk and Norwich and their supporters, for the foresight and ability with which these mediæval buildings have been preserved from destruction and worthily reconstituted so as to form one of the main attractions of the city.'

This resolution was carried by a large company by acclamation and with instructions that a copy should be forwarded to those interested."

We are glad to have had the opportunity of welcoming the members of your Institute to our city, we trust that your Conference has been both pleasant and profitable, and we hope that our city has maintained that reputation for hospitality to the strangers within her gates which throughout her long history she has constantly upheld. Her people, sturdy and independent, have ever been ready to welcome refugees from religious or political persecution, and in offering a refuge to such she has reaped considerable benefits. For close on two centuries, Blackfriars Hall, adjoining this Hall in which we are assembled, was leased to the Dutch residents in Norwich as their church. The French and the Flemish also settled here in great numbers at different periods of the city's history, bringing with them new arts and new ideas with which to enrich the city of their adoption.

Norwich has learnt that she has nothing to lose and much to gain from visitors representing interests of all kinds, and it is with very real sincerity that we assure you of our interest in the activities of your Institute, and of our hope that you may not long delay your return to this ancient city.

The SHERIFF OF NORWICH (Mr. C. Watling) also replied to the toast. He said: When I was told that it was to be my privilege and duty to respond to your toast of the ancient City of Norwich, it occurred to me how delightful it would be if speeches, like the charming buildings you design, could be constructed, as it were, according to plan. The architect of verbosity would be free from so many of those cramping restrictions with which you are all too familiar. The choice of any style would be open to



him. Considerations of expense would not fetter him and he would provide his own sunny aspect and breezy outlook. The one drawback I foresee is that the carefully prepared plan would have to be entrusted to some public person possibly as inexperienced as myself. Still, I commend the suggestion to you and if in what else I have to say you detect an absence of method, consider how much more symmetrical my observations might have been had they been delivered in accordance with the plans and specifications you are so well qualified to prepare. Left as I am without any guide to what the occasion or your kind wishes may demand, I am thrown back on my own poor conception of a suitable edifice. I had thought of a careful enumeration of the architectural beauties and treasures of Norwich, but I rejected that for three reasons. First, there are too many choice examples to be dealt with in one speech. Next, I am without the technical knowledge which all of you possess. And thirdly, this is your night off and you don't want me to talk shop. Will you, nevertheless, allow me to remind you of the mediæval glories of the Norman Keep, wherein last night you shared the generous hospitality of my Lord Mayor. And may I venture the opinion that the R.I.B.A. will never entertain its guests in a more magnificent banquet hall than that in which your lavish table has been spread to-night. We who dwell in the capital of East Anglia love to speak of the ancient city of Norwich. But do not, I beg of you, regard Norwich as an architectural museum wherein the citizens slumber till awakened by a chorus of admiration from American tourists. We have modern factories, housing schemes equal to anything of their kind elsewhere, spacious ornamental parks and garden grounds, and some day, it is said, we shall have some new streets. We are sorry you are a little too early to see the finest block of Municipal Buildings and Town Hall in England. In looking round this important gathering I have been trying to guess which head contains the plan which will ultimately be accepted for the erection of that notable structure. I am not a phrenologist, so I cannot locate the "Town Hall bump," but to this gathering of the Royal Institute of British Architects I would say may the day come when one of you may bless the ancient city of Norwich for the chance of designing and erecting her new Town Hall, and when you have done it may the city find it still possible to bless you. We in Norwich are a live community, taking our full share in the activities and the progress of the twentieth century. Our contributions towards the building of aircraft, both during and since the war, have been substantial. The main structure of the R 101 was built in Norwich by an engineering firm whose name is known the world over. Can you look at the dazzling whiteness

of the sea of shirt-fronts, which happily are still turned in my direction, without thinking of Colman's starch and blue? In all the insurance world no name stands higher than that of the Norwich Union Fire and Life Insurance Societies, whose trade-mark embodies the spire of our venerable Cathedral. Just for a moment I lifted your eyes of the spirit to that lofty spire; now let them return to earth, and as you gaze at twinkling feet you will be looking at the shoes, the product of the skill of Norwich workmen. Mr. President, against the architectural profession I have only one complaint—you are very expensive gentlemen. Yet for your comfort let me utter words of wisdom. The opinions of experts are not more costly than the mistakes of amateurs. Moreover you may really be worth the expense, at least sometimes and to some people. My acknowledgment of your kind words, and kinder reception, has cost me something in anxious thought and nervous tissue, but to me, at least, if not to you, it has been worth it. I thank you for the honour you have done me in associating my name with this Toast.

The VERY REV. THE DEAN OF NORWICH (Dr. D. H. S. Cranage) proposed the toast "The Royal Institute of British Architects, and the Allied Societies." He said: I feel I must begin with a very sincere and very humble apology. I was due, as many of you know, to meet you in the Cathedral Church yesterday afternoon, but I was prevented from being present by business connected with the Church Assembly which has been going on the whole of this week. I am sure you will not think I lightly gave up my engagement. I need not say much, I think, about the Cathedral. The old saying about good wine needing no bush is very true about our great Church. Everyone must be deeply interested in this great Hall where we are assembled. The Lord Mayor has told you something of it, but do let us remember its origin. It was the church of the Dominican friars, the preaching friars. The eastern part where we assembled to begin with is the place where they used to hold their daily services and this great nave was their preaching place. As you know they were called Friars Preachers and were the most eloquent orators of the Middle Ages. I have no doubt that in the fifteenth century, and right on until the Dissolution under Henry VIII, this great nave was often crowded with the citizens of Norwich to hear the eloquence of these friars. Mr. Kitson has told you a later example of Queen Elizabeth's presence here. Wherever you go you hear of her presence and sometimes you are shown the bedroom where she slept, even if it was built in the time of George II! Fifty years ago there was a false opinion with regard to the proper way to conserve old buildings. I am delighted to bear



testimony to the number of cases all over the country—it is becoming now almost universal—where the architect is the best possible preserver—not a restorer so much as a preserver of old buildings. I have been brought over and over again, officially and privately, in contact with members of your profession. I would like to put two serious points to you. The first is an archaeological one and the second is purely an architectural one. The archaeological one is this—what are we to do with the fine old churches in cities which are not required? You can't turn all of them into suitable halls, into Chapter Houses like an old Church near London Bridge which has been so converted for the Chapter of Southwark. Is it possible, is it wrong architecturally or archaeologically, for it to be removed? Some of you may know that a few miles from here, the Church of Sidestrand was on the edge of the cliff. A few years ago it was removed by Sir Samuel Hoare's father. I put that question to a distinguished man whose name has been mentioned to-night already, Sir Giles Scott, with regard to one of our beautiful, interesting but unrequired old churches. I said: "Is it possible to move this church? We badly want churches in the suburbs of Norwich?" His reply was discouraging. He said: "If it was made of good blocks, the thing would be perfectly simple. The blocks could be numbered and the whole thing taken down and rebuilt, but as most of your churches are made of flint, and very small flint, it is not an economic proposition to remove them." That is his considered opinion. I am not dealing with the archaeological difficulty but merely with a practical economic difficulty. The second one—you will not think it too serious for this occasion, I hope—is with regard to the Royal Institute and their rules of competitions. I had the great honour a few years ago at the University of Cambridge of serving on a Syndicate which was commissioned to get plans for the new University library. The question came up of a competition. We naturally felt that here was the greatest chance of the whole century and we must take the greatest possible pains to get the right man. Is it right to put the whole responsibility on one person? We thought of the possibility of competition, but we found—you are all familiar with the position—that we should have to have a professional assessor or assessors and would have to go by his or their opinion and either have to employ the one chosen or scrap the whole thing and have another. With a previous President, a much-revered man you all know in the Institute, I had a long conversation on the point. I said: "Surely there would be nothing against architectural etiquette if the assessors were to choose three out of the designs and say to the University—'With our permission you can employ any one of these three.' " I am not going to argue the point at length, but it is an important

point and I venture to put it forward for your consideration. My toast is really "The Royal Institute of British Architects and Allied Societies." I feel almost as if I was proposing my own health, for I have the great honour of being an honorary member of the Royal Institute and of two of the Allied Societies, the Leicester and Leicestershire Society of Architects, of which I have been an honorary member for far more years than I have of the central society, and the Norfolk and Norwich Association. I am going to couple with the toast the names of the President of the Royal Institute and of the President of the Norfolk and Norwich Association. I need not say much about your President; his name, it is hardly too much to say, is a household word. You all know, far better than I, with what distinction he has presided for one year at the meetings of the Institute, but to me and to countless others he is known, not by the brief term of President, but by the book without which none of us could get on, if we want rapid and accurate information of a building in any part of the world. The original book was his father's but it has been edited and edited again and again and brought up to date by himself, and I would not be without that book for a great deal. With regard to the President of your local Association, Mr. Kitson has already referred to the charming handbook Mr. Wearing has prepared. There was a time, some of you people present will remember, when it was thought to be the right thing to admire Gothic and hate everything else. We have long learnt better of English architecture than to think that idea to be true, and we have long found out that Georgian, early Georgian especially, is one of the most charming styles that exist. Mr. Wearing has brought home to us in this delightful manner the charms of Georgian Norwich. I have great pleasure in giving you the toast of the "Royal Institute of British Architects and the Allied Societies."

The PRESIDENT, responding, said: It gives me a very great pleasure to rise as President of the Royal Institute and to reply to this toast, which has been so eloquently proposed by my friend Dr. Cranage. We have been fortunate in meeting in this ancient and historic city, and events have so crowded themselves upon one another during the last two days that I really hardly know exactly where we are at the present time. But I will remind you that we were in prison last night and we are in church to-night. And I think it is very delightful to meet in this the nave of the Church of the old Dominican friars and to have our celebration here to-night. What the old friars of the fourteenth century would have thought if they could have imagined that their fine old nave would be treated in this way, I do not know. I am sure they would have been surprised and probably annoyed, but such is the march of events that many of these old



buildings have become useless for the purpose for which they were designed. Norwich is a most delightful centre for a meeting of architects, an ideal meeting place, and I feel sure that we consider that our meetings here have been a great success. At this stage of the proceedings I am not going to deal at any great length with many of the matters which have been mentioned, but I do think that we can hardly meet here without thinking of our great profession and its influence upon art and life through the ages, and feeling that we do belong to a profession that requires all our best efforts in the way of designing new buildings appropriate to the times in which we live. Norwich is rich in buildings of all periods of English architecture—Norman, Gothic and Renaissance—forming in my opinion a veritable history of the noble art which you and I are practising, and it is, in that respect, a perfect mirror of history throughout the ages. When we come to the present and deal with the new buildings that must of necessity be erected—public buildings, cinemas, aerodromes and buildings of all types—the Dean will realise that we have much more difficult a problem to solve than our ancestors in the art of architecture. Architecture is a necessity and must express the needs and the wants of the community, and in that respect we are bound to give of our best from the smallest building to the largest and most important building. I was much impressed by what the Dean said about preserving ancient buildings, and I do think Norwich may say it has set an example to the whole of England in preserving the buildings which have come down from the past. When we realise how the little cities of Europe preserve even small remnants of their old buildings, we better understand that they know that their preservation has a substantial commercial value to the community. It attracts people from all parts of the world to these old historic cities. Your historic architecture has an absolute commercial value and it is most wrong in my opinion that any old building which can be put to useful purpose should be destroyed. You see here to-night this building in which we are met; although it no longer serves the purpose for which it was erected, yet it answers the purpose very well for which we are met here to-night. It is interesting to look at the old walls and windows and this beautiful roof and realise, as I like to do, that architecture has a very human interest to all of us as we go through the road of life. Norwich has a great future in front of it. You have the regional planning of Norwich and district well in hand, and I hope that that aspect of architecture which is a most important one nowadays will be dealt with by you, my Lord Mayor, and your City Council in the way that you have dealt with the buildings which you have retained. There is an enormous amount of work to be done in

the prevention of the erection of ugly and unsuitable buildings, and we of the R.I.B.A. have in hand a very large matter at the present time—the control of elevations. It is a large matter because the freedom of the subject is one which in England must not be lightly interfered with. But I think, and I believe the considered opinion of the great mass of the English nation is with me when I say, that the time has come when some sort of control must be exerted in order that buildings ugly and ill-designed should be prevented from being erected in any part of this country. In order to effect that a Rural Amenities Bill, as it is called, was introduced by Sir Hilton Young, once a very popular Norfolk member.

It was drafted with the assistance of the Royal Institute and of the Council for the Preservation of Rural England. It was not successful in passing this year, but I am told that Mr. Greenwood, the Minister of Health, has in preparation a Bill of that kind which it is hoped to bring forward in Parliament next year, and which will, I hope, receive the assent of the Legislature. In order to further that assent I would remind you that you have a Member of Parliament, Mr. Walter Smith, who is with us at the present time, and if he can help us in seeing that the Bill is brought forward and can be put into an Act of Parliament I am quite sure he will deserve the best wishes of all Norwich citizens. There are matters which, if I had further time, I might deal with. We ourselves, Mr. Dean, are in the throes of a competition, as we are going to have a competition for the headquarters of the Royal Institute, and it is not going to be a very easy matter, as the Dean will probably be aware. But we are at the present moment selecting assessors, and in the course of time the competition will be properly launched. There are other matters which I need not deal with of which the Dean knows and to which he has referred most sympathetically, especially the educating of architects. I should like, on behalf of my colleagues present, to tender our thanks to all those responsible for the preliminary arrangements in connection with this Conference. Mention has been made of the admirably written brochure which has been produced, which should be adopted by the City of Norwich. This little brochure—every member has had one—gives a very delightful outline of what Norwich means to the visitor, and in that respect it has served a very useful purpose to us and will also be of use to those who come after us. Then there are the thanks we owe to the owners of houses we have visited. There are thanks we owe to you, my Lord Mayor, and the Corporation of the City of Norwich for providing us with our meeting room and for that splendid reception you have given to us. I would like specially to stress our thanks for your kind assistance, your welcome and, above all, for the



delightful personal hospitality of last night. To you, to the Lady Mayoress and to the Sheriff we owe a very great debt of gratitude for that function. Coming as I do from the City of London, where we carry out entertainments of this kind in what we believe to be the true traditions of English life, that meeting will ever remain in my memory as one of the most outstanding events. I would again put on record our indebtedness to the City Authority for the use of St. Andrew's Hall in which the meeting to-night is held and for much other assistance; to the Lord-Lieutenant and Mrs. Russell Colman for showing us over their house and their famous collection of pictures; to the Misses Colman, to Mr. and Mrs. Cozens-Hardy, and to Mr. and Mrs. Boardman for much assistance and for hospitality, and to the Conference Committee one and all for the thorough work of organisation. I should also like to thank Mr. G. A. Stephen for the valuable help of the handbook, and also all the guides, lecturers and others who have helped us successfully with the visits. I should mention particularly the President of the Norfolk and Norwich Society of Architects and the Honorary Secretary of the Conference, Mr. Eric Scott. Now, my Lord Mayor, I have only to add that we architects are interested in the advancement of architecture. Here in Norwich you have a civic spirit which helps in that advancement. You have the spirit of the English people expressed in the centuries that have gone by which made Norwich, as regards its architecture, one of the most interesting cities in the whole of England. In saying farewell to you, my Lord Mayor, and to the citizens of Norwich, we shall carry away very many pleasant recollections of the last two days and hope for the future artistic development of your city. In saying that I should like to add that we feel you can have every confidence in the architects of Norwich, for whatever new buildings you may require, whatever town planning schemes you may take in hand, I feel sure that if you consult the architects of Norwich you will find you will have the best professional advice it is possible to obtain.

Mr. STANLEY J. WEARING [F.], President of the Norfolk and Norwich Association of Architects, also responded. He said:—

It is my privilege to reply for the Allied Societies, and for the benefit of those of you who are not members of our profession, I should like to say that the Allied Societies are spread over the whole of the British Empire. They are 49 in number, 30 being located in Great Britain and Ireland, five in South Africa, one in East Africa, one in Rhodesia, seven in Australia, and one each in New Zealand, Canada, Burma, India, and Singapore. The principles on which the parent Institute is founded govern those allied to it. They are kept in touch with the working

of the Royal Institute by accredited representatives who meet in Conference four times during each year. By this means members practising in the provinces, as well as those farther afield, are enabled to take a very definite part in all that concerns the regulation of their business. As a member for the past two years of this Allied Conference, I can speak of the great value such gatherings are. Whilst the toast I have to reply to embraces the whole field of Allied Societies, I shall be forgiven, I know, if I address myself now particularly to the local one, the Norfolk and Norwich Association of Architects, which with the Suffolk Association forms the East Anglian Society. Our Association was formed in 1920, and our first annual report showed a membership of 19 and a total expenditure for the year of £3 17s. 9½d. Our numbers have grown to 79, and we have now opened a deposit account. We were fortunate in our start to have a man like Mr. Edward T. Boardman to take the helm, and Mr. E. W. B. Scott to act as Honorary Secretary, and too much praise cannot be given to these two gentlemen in guiding our destinies.

Any business or profession nowadays is becoming increasingly difficult, and the practice of architecture and the business of an architect is no exception.

Writing on the qualifications of an architect, a great architect in the fifteenth century stated:—

"An architect should be ingenious and apt in the acquisition of knowledge . . . He should be a good writer, a skilful draughtsman, versed in geometry and optics, expert at figures, acquainted with history, informed on the principles of natural and moral philosophy, somewhat of a musician, not ignorant of the sciences both of law and physics, nor of the motions, laws and relations to each other of the heavenly bodies."—*Vitruvius*.

From quite a different standpoint the following definition appeared in a leading architectural paper shortly after the war: During the war certain trench works were considered desirable on the outskirts of London, and the work of making these trenches was entrusted to the various battalions of London volunteers under the direction of officers of the Regular Army, who, for reasons of ill-health, age, or disablement in war, were not permitted to do service overseas. One of these military overseers came one day upon a voluntary sergeant who was busy with the making of a plan. "What is that?" said the officer. "A plan of the trench, sir," said the sergeant. "What is the good of that?" asked his superior, with military embellishments. "Why don't you set the men to work with their spades instead of messing about with drawings." "I do this," said the amateur sergeant, "because professionally I am an architect." There followed a conversation about the silly nonsense of letting professional cranks play at soldiering and the



desirability of going straight to work without any preliminary fads, winding up with "What has architecture to do with it, and what is an architect?" The answer came, "An architect, sir, is a man who is engaged at a very moderate cost to make small mistakes with a twopenny pencil on a threepenny piece of paper and to rub them out with a penny lump of rubber, solely in order to prevent his clients from making costly errors on valuable land with expensive materials."

Besides papers to our own members and offering annual prizes to our students, we have endeavoured to interest the local public by organising lectures from leading London architects, as well as from our own members. We have endeavoured to take our part in this city. One of our members, Mr. Bond, is a valued member of the Town Council, and our Association is represented on the Committee of the Norfolk and Norwich Archaeological Society and the Norwich Society. Through these we have been able to take a definite share in saving Elm Hill, the treatment of the Castle Meadow widening scheme and the proposed street schemes for Norwich. That we have not been able to give a united opinion on this last difficult matter is because we find it impossible to formulate this, but we have worked and will continue to work for a right and proper solution. This is no new problem and it

will interest you, I think, to hear some opinions of what happened about 100 years ago under similar circumstances. The Editor of the *Norfolk Chronicle* says, regarding Exchange Street:—

"The new avenue to the Market Place, in which is erected the new Corn Exchange and the Rooms for the Norwich artists, is worthy, from the style of the buildings, of a greater width of street, but so manifold are the impediments opposed to most attempts at public improvement, by the state, position, and value of private property, especially in a commercial city like this, that plans and speculations generally in the end yield rather to necessity than choice, such we believe to be the cause in the present instance, and therefore it gives the greater credit to a design whose completion must add materially to the convenience and ornament of Norwich."

Another writer said:—"The New Corn Exchange is at the end of the newly formed street running from the Market, which street forms the greatest improvement in this city that has ever been executed. It is ornamented with Ionic pilasters and a continued architrave, frieze and moulding, through the front of each side of the street." Then, when London Street was widened in 1855 at a cost of £20,000, one writer said "the whole street is a bungle after all." We



EAST BARHAM MANOR



must endeavour to keep the character of our city in trying to adapt it to modern transport, and save wherever possible the glorious heritages which have come down to us from the past.

In closing, sir, I am confident I am speaking for our Allied Societies in general, and certainly for the Norfolk and Norwich one in particular, in stating that they are endeavouring to carry out in their different spheres the great traditions associated with the art of architecture.

Mr. EDWARD T. BOARDMAN [F.] proposed "Our Guests." He said:—I am sure we all wish, whether we are from Australia or Canada, or Ireland, to give a hearty welcome to our guests. We have here the Lord Mayor to whom we owe so much, we have the Town Clerk, and many of the principal officials of the district who have all lent a hand in making this Conference the enjoyment it has been to us all, and we feel very grateful and honoured that they should accept an invitation to join us to-night. Without more words I just move the toast—the toast of the evening—and I couple with it the name of Sir Bartle Frere, the High Sheriff of Norfolk, who is also Deputy-Chairman of the Norfolk County Council and can instruct us as to what is wanted in the way of buildings, and we hope we can be of help to him. Architecture is now drifting into the hands very much of public authorities, and the more we can come together the better it will be for all of us. I have much pleasure in presenting to you the toast of "Our Guests."

Sir BARTLE H. T. FRERE responded. He said:—We are here as your special guests this evening, but

we are always your guests. We are born, we live, and, unfortunately, we die in the houses you provide for us—most of us. I say "most of us" because I am, perhaps, an exception. I live in a house, of which I am told, the plan of the main portion was drawn by the former owner with a walking stick on a gravel path. And I am quite prepared to believe it. The house I possessed before that was a stone bungalow on which I had a standing contract for rectangular rooms, with roofs, windows, doors and ceilings 12 feet high, at 2s. 6d. a square foot. That did not require anything more than even the Sheriff's ignorant amateur could do in the way of making out the quantities. The ignorant amateur must be one of your misfortunes, second only to that dreadful substance, Portland cement, the colour of which is as reminiscent of prison as its name. The ignorant amateur must be a hopeless encumbrance to your profession. I have only known one perfect client, and that, of course, was a lady. She was asked by the architect what sort of a house she wanted, and she said "A nice irregular house." The architect was youthful and ardent and he gave her a nice irregular house. Every period from Stonehenge to the spacious days of Queen Victoria was represented. That is the sort of spirit which I trust may actuate all your clients. It was the spirit which actuated the clients which enabled your previous professors of your art to build up the imperishable memorials which we have now. On behalf of your guests in the past and in the future, and still more in the present, I thank you for your invitation here this evening.

The following is a list of the company present at the Banquet:—

The President, Sir Banister Fletcher, F.S.A., in the chair.  
The Rt. Worshipful the Lord Mayor of Norwich; the Lady Mayoress of Norwich; Lady Fletcher, the Most Hon. the Marchioness Townshend; Sir Bartle H. T. Frere, K.C., J.P., the High Sheriff of Norfolk; Lady Frere; The Very Rev. D. H. S. Cranage, Litt.D., F.S.A., Hon. A.R.I.B.A., the Dean of Norwich; Mrs. Cranage; Mr. C. Watling, the Worshipful the Sheriff of Norwich; Mrs. C. Watling, the Worshipful the Mayor of Thetford; the Mayoress of Thetford; Alderman H. E. Witard, J.P., the Deputy Mayor of Norwich; Mrs. Witard; Mr. J. A. Christie, J.P., M.P.; Mr. W. R. Smith, M.P.; Mrs. W. R. Smith; Mr. Wm. B. Taylor, J.P., M.P.; Sir Hamilton Ballance, K.B.E., C.B.; Lady Ballance; Mr. Christian Barman; Mr. R. F. Betts, B.Sc.; Mrs. R. F. Betts; Mr. J. S. Bullough, the City Engineer of Norwich; Mrs. J. S. Bullough; Mr. J. Walter Bunting, President of the Norwich Incorporated Chamber of Commerce; Mrs. J. Walter Bunting; Mr. R. G. Carter, President of the Norwich and Norfolk Master Builders' Association; Mr. John Cator, J.P.; Mrs. John Cator; Mr. W. L. Clabburn; Mrs. W. L. Clabburn; Alderman H. J. Copeman, J.P.; Mr. Howard A. Costigan, Ph.D., B.Sc.; Mrs. Howard Costigan; Mr. A. Cozens-Hardy; Miss Cozens-Hardy; Mr. J. H. Dain, Chief Constable of Norwich; Mr. Hugh Christopher Davies, Clerk to the Norfolk County Council; Mr. H. E. Dyball, President of the Norwich and

Norfolk Traders' Association; Mr. S. T. Gill, Treasurer of the Norwich and Norfolk Master Builders' Association; Mr. Herbert P. Gowen, Chairman Norwich Publicity Association; Mrs. Herbert P. Gowen; Mr. G. Percival Griffiths; His Honour Judge C. Herbert-Smith, LL.D.; Mrs. C. Herbert-Smith; Mr. C. W. Hobbs, A.R.C.A.; Mrs. C. W. Hobbs; Mr. Henry N. Holmes, J.P.; Mrs. Henry N. Holmes; Mr. W. T. F. Jarrold, J.P.; Mrs. W. T. F. Jarrold; Mr. Ian MacAlister, M.A., Secretary R.I.B.A.; Mrs. Ian MacAlister; Mr. R. H. Mottram; Mrs. R. H. Mottram; Mr. W. T. Plume, Hon. A.R.I.B.A.; Dr. G. Stevens Pope, J.P.; Mrs. G. Stevens Pope; Rev. C. T. Rao, M.A., B.D.; Mrs. C. T. Rao; Mr. A. C. Rose; Mrs. A. C. Rose; Mr. Noel B. Rudd, M.A., Town Clerk of Norwich; Mrs. Noel B. Rudd; Captain A. E. Sandys-Winsch; Mr. W. Smith, Vice-President of the Norwich and Norfolk Master Builders' Association; Mr. Bertram Steward; Mr. Geoffrey Thorp; Mrs. Geoffrey Thorp; Major S. H. Warren, County Surveyor of Norfolk; Mrs. S. H. Warren; Mr. W. L. Wood.

Mr. N. G. Abercrombie; Professor Patrick Abercrombie, President of the Liverpool Architectural Society; Mr. T. C. Agutter; Mr. Rodney H. Alsop; Mrs. Rodney H. Alsop; Mr. J. G. Ambrose; Mrs. J. G. Ambrose; *Architect and Building News*; Mr. Geo. W. Atkinson; Mrs. Geo. W. Atkinson.

Mr. Phil Back; Mrs. Phil Back; Mr. F. G. Baker; Mr. A. E. Batzer; Mrs. A. E. Batzer; Mr. A. G. Berry; Mrs. A. G. Berry; Mr. Eric L. Bird; Dr. Ribton Blair;



Dr. A. J. Bland; Mr. H. C. W. Blyth; Mr. Edward T. Boardman; Mr. J. Owen Bond; Mr. Walter Brand, President of the Leicester and Leicestershire Society of Architects; Mr. C. J. Brown; Mrs. C. J. Brown; Mr. G. P. Brown; Mrs. G. P. Brown; Mr. C. S. Buckingham; Mrs. C. S. Buckingham; Mr. E. H. Buckingham, President-Elect Norfolk and Norwich Association of Architects; Mrs. E. H. Buckingham; Mr. G. S. Buckingham; Miss M. Buckingham; Mr. Edward Bullard; Mrs. Edward Bullard; Mr. Ernest Bullard; Mrs. Ernest Bullard; Miss Bullard; Mr. Willoughby Bullock; Mrs. Willoughby Bullock; Mr. Chas. Bunting; Mrs. Chas. Bunting.

Mr. A. Lorne Campbell; Mr. William Carless; Mrs. William Carless; Mr. John D. Clarke; Mr. R. M. Close; Mr. Eustace G. Cohen; Mrs. Eustace G. Cohen; Mr. R. A. Cooksey; Mrs. R. A. Cooksey; Mr. H. A. Cooper; Mr. Grahame Cotman; Mr. Herbert A. Cox; Mr. Philip H. Cundall.

Mr. J. Gordon Davies; Mr. T. Raffles Davison, Hon. A.R.I.B.A.; Mr. John L. Denman; Mrs. John L. Denman; Mr. F. M. Dewing; Mr. B. H. Durrant.

*East Anglian Daily Times*; *Eastern Daily Press*; Mr. J. H. Elder-Duncan.

Mr. Frank Garland; Mrs. Frank Garland; Mr. A. M. Giles; Mr. H. J. T. Gowen; Mrs. H. J. T. Gowen; Miss Gowen; Mr. G. Hastwell Grayson.

Captain Herbert Haines; Miss Virginia Hamill; Mr. F. C. Hargrave; Mr. F. G. Hicks, President of the Royal Institute of the Architects of Ireland; Miss Violet Hicks; Miss Hodges; Mr. Francis Hooper; Mr. George Hubbard, F.S.A.; Mr. V. C. Hunt.

Miss Dorothy Ingmere; Mr. A. Linton Iredale.

Mr. E. R. Jarrett; Mr. T. Foster Johnson; Mrs. T. Foster Johnson; Miss Anne Farewell Jones.

Mr. Arthur Keen; Mrs. Arthur Keen; Mr. E. Bertram Kirby, O.B.E.; Mrs. Robert Kirk; Mr. Sydney D. Kitson, M.A., F.S.A., Hon. Secretary R.I.B.A.; Mrs. Sydney D. Kitson.

Mr. Henry J. Leaning; Mrs. Henry J. Leaning; Mr.

Frank Lishman; Mr. R. Goulburn Lovell.

Mr. C. Stanbury Madeley; Miss Hilda Mason; Miss Elfrida Mason; Capt. J. A. Mair; Mrs. J. A. Mair; Mrs. Maxwell; Mr. P. R. McLaren; Mrs. Marion McLaren; Mr. C. J. Messent; Mr. Thomas R. Milburn; Mrs. Thomas R. Milburn; Miss Milburn; Mr. H. Greville Montgomery, J.P., Hon. A.R.I.B.A.; Mrs. H. Greville Montgomery; Miss Montgomery; Miss Montgomery; Mr. B. B. Morgan; Mrs. B. B. Morgan.

*Norwich Mercury*.

Mr. John Page; Mrs. John Page; *Press Association*.

Mr. Stanley C. Ramsey; Mr. Thomas Rayson; Professor A. E. Richardson; Mr. H. Whiteman Rising; Mr. Roadley-Simkin; Mrs. Roadley-Simkin.

Mr. Eric W. B. Scott, Hon. Secretary of the Norfolk and Norwich Association of Architects; Mrs. Eric W. B. Scott; Mr. Theodore G. Scott, M.C.; Mrs. Theodore G. Scott; Mr. T. E. Scott; Mr. Joseph Seddon; Mrs. Joseph Seddon; Mr. Eric H. Skipper; Mrs. Eric H. Skipper; Mr. F. W. Skipper; Mr. Geo. J. Skipper; Mrs. Geo. J. Skipper; Mr. Lamport Smith; Mr. H. T. B. Spencer; Sir John Sulman; Mr. H. R. Surridge; Mr. W. Lincoln Sutton; Mr. F. H. Swindells; Mrs. F. H. Swindells.

Mr. E. J. Tench; *The Times*; Mr. W. Harding Thompson, M.C.; Mr. C. H. Thurston; Mr. W. H. Town; Miss Tracey; Mr. Laurence A. Turner, F.S.A., Hon. A.R.I.B.A.; Mrs. Laurence A. Turner.

Mr. Cecil Upcher; Mrs. Cecil Upcher.

Mr. H. J. Venning.

Mr. R. B. Walker; Mrs. R. B. Walker; Miss M. E. Watson; Mr. Stanley J. Wearing, President of the Norfolk and Norwich Association of Architects; Mrs. Stanley J. Wearing; Mr. Gordon M. West; Mr. G. H. Widdows; Mrs. G. H. Widdows; Mr. T. B. M. Wightman; Mr. Victor Wilkins; Mrs. Victor Wilkins; Miss E. C. Wilkinson; Mr. P. H. Winter; Mr. Raymond C. Wrinch; Miss Beris Wrinch.

Mr. Thomas C. Yates; Mr. C. W. Yell; Mr. F. R. Yerbury, Hon. A.R.I.B.A.; Mr. E. Alexander Young; Mrs. E. Alexander Young.

## Notes on the Visits

THURSDAY, 19 JUNE 1930.

ELM HILL, GRAMMAR SCHOOL CHAPEL, THE DEANERY, THE CATHEDRAL,

### VISIT A.

The members who paid this visit, met at St. Andrew's Hall at 2.30 and at once proceeded to Elm Hill which is near at hand. This is a survival of a mediæval street, almost entirely unspoiled by work of other dates. At the top of the Hill is the church of St. Peter Hungate, with its wonderful intersecting roofs at the crossing. Only a few of the party entered the church as time would not permit it to form part of the programme. The north side of Elm Hill has been almost entirely purchased by the Norwich Corporation, who, aided by the Norfolk and Norwich Society of Architects, have opened out the old work and revealed many hidden beauties. The chief houses of interest are No. 20, now a picture gallery and probably once the house of the Paston family, and the next house (now the Strangers Club) once the house of Augustine Steward (1570) whose merchant's mark appears on a carved beam over the entrance of Crown Court adjoining. On the opposite side of the way is the house

of Thomas Pettus (1590) where, by removing stucco, some beautiful tracery in oak has been brought to light. The wonderful overhanging gable of the Briton's Armes is well worth sketching. The Hill takes its name from an old Elm tree that stood here for more than a century. It had a successor, but that has now gone the way of all elm trees. The whole street has been very sympathetically treated and as it was bought up for demolition, it is greatly to the credit of the local architects' society that it was saved for the future enjoyment of those interested in such matters.

Leaving Elm Hill the party proceeded to Tombland, once a market, passing on the way Sampson and Hercules House, specially noted for its carved figures carrying the porch; and the adjoining Steward's House, a fine half timber example, spending a few moments to glance at Tombland Alley which runs through the churchyard of St. George's Tombland church. Round Tombland are very fine examples of Georgian work, while the two outstanding features are the gateways to the Close, the Ethelbert Gateway with its decorated stone and flint tracery and the later date Erpingham Gateway, built by



Sir Thomas Erpingham of Agincourt fame. Both the gates were built as penances, the Ethelbert Gateway by the citizens after a riot and the other by Sir Thomas, who is represented kneeling in the niche over the top of the archway. The great height of the arch of the gateway should be noted, undoubtedly it was to show forth the west front of the Cathedral.

So much has been published about the subject of the next visit, the Cathedral, that not much is needed for these notes. The party visited the outside first, passing through the Ethelbert Gateway and moving westwards through the close, noting the good examples of Georgian work immediately inside the gateway and also the fine houses at the east end of the lower close. Time did not permit a visit to the Watergate or Pull's Ferry at which the sea borne stone was landed for the building of the earlier part of the Cathedral. The feature of more recent interest was the grave of Nurse Cavell, whose heroic end is in the minds of all. She was a native of the city and her body lies near the east end of the Cathedral in an enclosure known as "Life's Green."

The interior of the Cathedral looks almost new at a first glance owing to the unflaking of the stonework in 1899; the stone now shows up the original mason's tool marks almost as sharply as when first executed. The history of the Gothic tracery exemplified in the cloisters is worth much study, as the work covered a period of about 300 years. Other special points to be noted in this exceptional building are the bosses in the vaulted roofs, the great height of the spire of which a fine view can be obtained from the south-west angle of the cloister garth, the original episcopal throne situated in the centre of the apse, and said to be the oldest one north of the Alps, and the large view of Norman work alone, to be obtained from one point of view in the St. Luke's Chapel looking outwards towards the apse. On leaving the Cathedral the party was to have visited the Grammar School Chapel which was built in 1316 by John Salmon, Lord Chancellor, Bishop of Norwich, as the Chapel of St. John the Evangelist, while the crypt was the charnel house, but time did not permit of this visit being paid as the cars were waiting outside the Erpingham Gateway to take the party to enjoy the hospitality of Carrow Abbey.

E. J. T.

**'STRANGERS' HALL, THE GUILDHALL, ST. PETER MANCROFT, BRIDEWELL, ST. PETER HUNGATE, PRINCES STREET'.**

#### VISIT B.

A number of members took part in this visit. The guides were Mr. F. H. Swindells [A.] and Mr. Basil Cozens-Hardy, who acted as guide to St. Peter Hungate Church.

**ST. GEORGE'S COLEGATE CHURCH, OCTAGON CHAPEL, OLD MEETING HOUSE, ST. HELEN'S, BISHOP BRIDGE.**

#### VISIT C.

St. George's Colegate was the first place visited; this is a typical flint-built church of the fifteenth century. Amongst other points of interest inside are some good wall monuments, one of which records the burial place of

John Crome, the founder of the Norwich School of Painting. Within a stone's throw is the Octagon Chapel, and here Mr. Wearing stated that an account of this building was given in detail in his book *Georgian Norwich Its Builders*. He gave a brief *resumé* of what was a mid-eighteenth century competition, in which an architect, two carpenters and a stonemason were the competitors. The old Minute books, which were carefully kept by the committee, were still available and revealed fresh light on building customs of the time. Each of the tradesmen competitors was given work to do in the building. Thomas Rawlins, the stonemason, wrote a book entitled, *Familiar Architecture*, a copy of which is in the Institute Library, and amongst other subjects represented is his design for an octagonal church.

Within a stone's throw of this building, the Old Meeting House was next visited, where Mr. H. J. T. Gowen said: "Our object in asking your attention to this building is, that it is a very early and important example of Free Church architecture, probably the first."

"In East Anglia the Old Meeting House is regarded as the cradle of Puritanism, being founded during the reign of Charles I, in 1642, by the Rev. William Bridge, M.A., of Emmanuel College, Cambridge. He was rector of St. George's Tombland and was suspended with forty-nine others from the Church of England by Bishop Wren, for refusing to read the *Book of Sports*. In order to enjoy greater religious freedom, he fled to Holland, and was pastor of the Rotterdam Church in 1638. Two years later conditions here permitted his return, when he formed two churches, this one, and a sister church at Yarmouth. He was minister to both; one Sunday the members at Norwich would walk to the services at Yarmouth (a distance of 23 miles), and the following Sunday, the Yarmouth members walked to Norwich. Even the Puritanical fervour of those days could not sustain these lengthy journeys on the Sabbath for long, and after a most friendly conference the one company decided to become two. The Norwich section still met in private houses, and later on in a brew house in St. Edmunds; it was not until 1693 that they were able to complete this building. The architect now suffers the fate that probably a few of us will share in future days—he is unknown."

"May I draw your attention to a few of its features, some of which you may have already observed for yourselves. The main south elevation, of course, demands most notice, with its thin bricks and still thinner rubbed and gauged pilasters surmounted by Corinthian caps, above which are the heavy wide eaves with enriched console blocks under the soffit. All the windows have moulded brick dressings to the jambs and head, rising on massive cills of timber. The entrance doorways are protected by large projecting flat canopies."

"Note also the simple sundial in the centre with the date; this is a little feature not usually associated with Free Church buildings. The paving in front is genuine Dutch clinker paving. The building stands four square to the points of the compass, and its walls are of more than ordinary thickness for this class of building; its roof is a framed one over a flat ceiling, with the trusses running north to south, and is covered with dark glazed pantiles."



"I ought not to conclude without mentioning that John Cromwell, kinsman of the great Protector, was one of the early ministers of this church, and his pulpit chair is now preserved in the glass case in the window embrasure of the east lobby, together with the pitch pipe and singing master's stick that was used to lead the singing of the hymns before the introduction of the present organ."

Passing by way of Fishergate, which is said to take its name from the old fish wharves which once skirted the riverside here, many quaint old façades were passed and admired; thence we came to Palace Plain where good Georgian houses abound, the principal one being once the home of John Sell Cotman. A short stay was made outside the old tabernacle, the scene of somewhat bitter religious controversy, which Mr. Wearing briefly touched on, reading some abstracts from the local paper of the late eighteenth century.

Passing along Bishopgate, the next visit was to St. Helen's Church and the Great Hospital, where the Rev. F. W. Bennett Symons discoursed on the buildings and afterwards conducted those present round the charming old cloisters and rooms where the old people live. He recounted that "In the reign of Henry III (1249), Bishop Walter de Suffield founded and endowed the Hospital of St. Giles, for a Master, four chaplains, a deacon and four sisters to take care of the sick, as a 'Domus Dei' and 'House of the Poor and Decrepit Chaplains of the Diocese' of Norwich, thirteen poor citizens to have one meal a day, and seven poor scholars to reside there. At the Dissolution, it was opened for citizens of 65 years of age, who had resided three years in Norwich. The residents who are single live in wards, each has his or her own cubicle, and the married couples live in cottages. The chancel has now a ward upstairs and down, a floor being erected on 'Dormans' (beams) brought from the Bishop's Palace in 1570. This part of the church was built by Bishop Spencer (1383) and has a very beautiful 'Waggon' roof with bosses and panels. Each panel contains a figure of the Austrian Eagle, in honour of Ann of Bohemia, who visited Norwich with her husband, Richard II, when the chancel was opened in 1385.

"The great east window has very fine flamboyant tracery. Its stained glass was destroyed in the Kett Rebellion, when the south aisle of the Infirmary Ward was burned down. The centre part of the church, now the chapel of the hospital, 'the Parish Church of St. Helen's,' is in daily use and this portion of the original church of the Hospital of St. Giles is open for divine worship to the residents, parishioners and citizens of the city of Norwich. At the present time, some 170 people enjoy the privileges of this fine mediæval foundation."

S. J. W.

MARKET PLACE, ST. PETER MANCROFT,  
BETHEL STREET, LADY LANE, HIGH SCHOOL,  
ST. STEPHEN'S, SURREY STREET, ALL SAINTS'  
GREEN.

#### VISIT D.

This visit went right through the heart of the city and a great many interesting buildings were seen, as well as

those especially referred to in the programme. Indeed, it may be claimed that it was scarcely possible at any point on the route to look in any direction without seeing something good, either of early or late work.

St. Andrew's Church was first passed, with very noble tower and pleasing grouping on the south. Opposite is the Bridewell, which the party examined with great interest, as it is such a fine specimen of squared black flints. Bridewell Alley, although messed up with bad shops, has still an old atmosphere and lots of old gables. Bedford Street has particularly a notable Georgian building, simple outside but within fine joinery, almost too good for an engineer's showrooms.

Exchange Street was chosen as the approach to the market-place, owing to the distant vista of St. Peter Mancroft with the Sir Garnet Wolsey, and the sudden view of the Guild Hall, which greatly fascinated the party. Inside St. Peter the priceless plate was seen, as well as the building itself, which is the largest and most notable of the many churches in Norwich.

From the market-place, which is still full of interest, the Girl's High School was soon reached. Much time was spent in going over this building, designed by Thomas Ivory. It was originally built as an Assembly Hall of entertainment and the fine rooms are still there, where, a century and a half ago, youth and beauty met to talk, drink coffee and dance. A few of the party went down into the cool, vaulted mediæval basement.

St. Stephen's Church was then visited, where much discussion took place on the date and the interesting manner of the arcading. Via Rampant Horse Street, St. Stephen's Street, and Surrey Street, the visit ended at All Saints' Green, passing en route the old thatched inn known as the Boar's Head, and many late eighteenth century buildings.

T. G. S.

ST. JOHN MADDERMARKET CHURCH, ST.  
GREGORY'S CHURCH, ST. LAURENCE CHURCH,  
STRANGERS' HALL, BRIDEWELL, PRINCES  
STREET.

#### VISIT E.

This visit was to three of the less widely known of the many ancient churches of Norwich, and to the Strangers' Hall.

Starting from St. Andrew's Hall, the party walked to the Maddermarket and visited first the church of St. John Baptist. This is one of the many churches in Norwich having a single unbroken roof covering nave and choir. It stands on the site of a church founded before the Confessor's Survey. The present building is of the fifteenth century, and was the parish church of the Dukes of Norfolk. It was here, on 18 February 1563, that Margaret (Audley), Duchess of Norfolk, was buried with magnificent funeral ceremonies. Later, in June 1579, the churchyard wall was pulled down and rebuilt to widen the street for the passage of Queen Elizabeth to the Duke's Palace.

From St. John's the party went to the church of St. Gregory, rebuilt at the end of the fourteenth century to replace a church of about 1200. This church has a small vaulted "Galilee," and the tower-porch and ringing



gallery are brick vaulted. It is here also that there is a good specimen of the sanctuary knocker, of which there are now but few in existence. This church, unfortunately, lost its chapel of the Assumption in the "improvement" of 1788, and its lofty spire in 1840.

Thence the party walked to the church of St. Laurence, a building of singular grace and stateliness, built 1460-1472 on the site of a church of about A.D. 1050 on the herring wharf of West Wick. This church contains an interesting pre-Reformation bell, cast in London about 1350, and still in use as one of a peal of six.

The next building visited was the Strangers' Hall, where the building and its exhibits were explained by Mr. Bolingbroke, son of the former owner, who presented the building to the city. The original "hall" has been preserved with its bay window, stairs, and roof, in its original state, and other rooms are furnished in various periods, the whole being now in use as a museum of furniture and household articles of past ages.

J. E. B.

#### THE COLLECTION OF WORKS BY THE NORWICH SCHOOL AT CROWN POINT.

After the visits, members had the opportunity of taking tea with the Misses Colman at Carrow Abbey and of seeing the remains of the Benedictine Nunnery which are incorporated in the house and gardens, or of partaking of the hospitality of the Lord Lieutenant of Norfolk, Mr. Russell J. Colman, at Crown Point. There Mr. Sydney Kitson (Honorary Secretary, R.I.B.A.) gave a short account of the Norwich School of Painters, with special reference to the examples in the Crown Point Collection. Mr. Kitson said:—

"The Norwich School, which arose at the beginning of the nineteenth century, is the only instance in England since the Reformation of a band of local painters working together in their native city and depending upon a local market for the sale of their work. The existence of this School may be attributed in part to economic causes. From 1750 and for 30 years onwards Norwich was the wealthy centre of the wool trade. A new middle class was evolved which demanded small pictures for its homes, as distinct from the large canvases which the London artists were producing for the country houses of the landed class. In response to this demand a school of local painters arose—descendants, perhaps, of the men who painted the Norfolk screens in the fifteenth century. Of the score or more artists of the Norwich School, two were men of genius—John Crome and John Sell Cotman. But they were born a generation too late. The discovery of steam as a motive power for the looms drove the wool trade elsewhere. So when the Norwich artists reached the producing stage they were largely without patrons, and they were obliged to become drawing-masters in order to live. Yet they held exhibitions in Norwich from 1805 onwards, and continued to produce work, much of which remained unsold.

"Mr. Russell Colman has gathered at Crown Point a comprehensive collection of the works of the Norwich School. Not only are the two great giants fully represented, but also the lesser men—Ladbroke, Thistle, Stark, Vincent, Stannard, and the rest. Crome, the founder and rugged natural genius of the School, occupies a prominent place here with his oil paintings, which range from his 'Carrow Abbey' to his 'Postwick Grove.' There is also a collection of his rare water colours, which are unequal, but full of interest.

The wide field of Cotman's genius can be seen at Crown Point as it can be seen nowhere else. His work has qualities of design, pattern and balance which make an especial appeal to architects. Going to London as a boy of 16, at the end of the eighteenth century, Cotman quickly assimilated the developments in the art of water colour painting which Girtin and Turner—his seniors by seven years—were then making. From this groundwork he soon evolved a style of his own, in which flat washes were used in a mosaic of pattern, in a method comparable with the technique of the old Chinese and Japanese drawings. This admirable phase of Cotman's work is well represented here—especially by 'The Marl Pit' and the 'Hell Caldron on the Greta.'

"He returned to Norwich. But such drawings as his were too new and original to be appreciated at that time. He therefore became a drawing master and turned out endless drawing copies for the use of his students. Thereby his style became to some extent hardened—from want of a constantly renewed reference to nature. Ten years of bondage at Yarmouth followed, when Cotman was mainly occupied in drawing churches in Norfolk and Normandy for a local banker—one of the amateurs who were responsible for the Gothic Revival. Yet these architectural drawings have an emotional quality such as only a great imaginative landscape artist could impart. Cotman came back to Norwich for another ten years of drift and disappointment. During these years, however, he produced many lovely seascapes—such as 'After the Storm' and 'The Needles.' His last eight years were spent in London.

"All his life this great master of watercolour was also painting intermittently in oil. The National Collections do not show this important phase of his life's work in any adequate way. But here it is possible to appreciate the originality and greatness of Cotman's oil paintings. 'The Waterfall' is one of the most haunting and beautiful pictures in the world.

"Although endowed with a fineness and austerity of vision such as has been granted to few other artists, Cotman did not possess a corresponding robustness of fibre. Hence his production sometimes falls below his gift. This superb gift of his, however, can be appreciated without any qualifications when looking at such masterpieces as 'The Waterfall' and 'The Marl Pit' at Crown Point."



## Notes on the Motor Coach Tours

FRIDAY, 20 JUNE.

CAWSTON CHURCH, SALLE CHURCH,  
BLICKLING HALL.

## TOUR No. 1.

As we turned northward over the Wensum, the quaint narrow streets soon gave place to delightful field and woodland scenery.

After passing under the overhanging sign of Cawston Woodrow Inn, we left the main road and the tower of the church was soon visible amid a picturesque setting. A brief description of the church by Mr. G. Anderson helped visitors to appreciate the interesting features of the building: the magnificent hammerbeam roof with its tall angels carved in wood, the screen with painted panels, the fifteenth century pulpit, seats in the nave, and backless seats in the aisles, the altar rails and the ringers' loft.

In a county where flint is largely used for facing the walls of the churches, the tower here gives additional interest. Simple in detail, yet delightful and stately in proportion, it rises above the charming old-world village clustered round its base. This is the last impression of a pleasing group seen from the road that leads to Salle.

The church at Salle is without the compact village as at Cawston, nevertheless it has a delightful setting. Passing into the church through the large west door its proportion and scale are impressive. After a brief account of its history and the mention of the chief points of interest by the rector, the Rev. W. L. E. Parsons, considerable time was occupied in the interior. Although largely restored, the roof retains many of the carved bosses and figures. Fragments of old glass remain in some of the windows and the chancel contains a series of fine oak choir stalls with carved miserere seats. Noticeable among other features were the fifteenth century pulpit, converted later into a three decker with desks for priest and clerk, the seven sacrament font and the wooden skeleton of what was evidently once a fine carved cover. This is still raised by means of a crane operated from the ringer's gallery. Climbing the narrow staircase in the north-west corner of the church one entered a beautiful little chapel over the north porch. The doors of the church are all original with good iron work.

The tour was continued to Aylsham via Blickling woods, with a passing glimpse of the Hall; a halt was made for lunch in this market town, rich in smaller domestic work. Returning in the afternoon to Blickling Hall, the company collected on the bridge over the moat, where Mr. J. A. Gotch, P.P.R.I.B.A., introduced one of the finest examples of a large mansion of the Jacobean period, briefly surveying its history and emphasising the features which were characteristic of those times. The magnificent staircase and the Long Gallery with rich plaster ceiling were especially noted. The first and last views of the Hall were particularly impressive. The long stretches of lawns bordered with tall yew hedges, the line continued by the stable wings, and culminating in the fine front of the Hall, do credit to its designer. It was delightful to find there was sufficient time to wander or rest in the beautiful grounds before returning to Norwich, via Aylsham and St. Faith's.

C. H. D.

MELTON CONSTABLE HALL, BINHAM  
PRIORY, BLAKENEY CHURCH, CLEY CHURCH,  
SALT HOUSE.

## TOUR No. 2.

The party assembled on St. Andrews Hall Plain, opposite the Conference headquarters, and started at 9.30 a.m. Bearing north through the narrow and busy streets of industrial Norwich, in dull but promising weather, an hour's run took us to Melton Constable, where the seat of Lord Hastings was our first stop, built in 1670, a fully fledged example of the English renaissance, showing the influence of Inigo Jones. The main block is almost square on plan, built in red brick and stone dressings and hipped roof with a bold enriched cornice. We were welcomed by Mr. R. Owen Goddard, in Lord Hastings' absence, and separated to view the house and grounds at leisure. On re-assembling we were entertained to the light refreshment known locally as "elevenses."

We resumed our journey through open rolling country, the best partridge country in England. More than once the procession of cars had to ease up to allow the mother with her covey of chicks to gain the safety of the hedge-sides. Our way lay through Briningham and Gunthorpe, with their cottages built of kidney pebbles and brick in the manner peculiar to this district, showing marked Dutch influence.

Binham Priory was our next halt. Here Mr. Basil Cozens-Hardy pointed out its many points of interest. The western half serves as the parish church and alone survives; the present nave, plain massive Norman, the beautiful transitional early English to decorated west front and the seven sacrament font were duly noted.

Continuing our way to the coast, the sea and the salt marshes and dunes of the north Norfolk coast came into view. Scolt Head, the national bird sanctuary and breeding place of innumerable sea birds, was noted with interest. An excellent lunch was provided at Blakeney, forty-one sitting down. Many of the party, with commendable energy, got busy with their sketch books to record its many fascinations. After lunch a visit was paid to Blakeney church, where Dr. Reid and Bishop O'Rorke described its interesting features, comprising its fine west doorway, unique lantern turret and seven lancet east window.

The fine church of Cley was visited next, Mr. Basil Cozens-Hardy again acting as guide, and it is perhaps the finest example of the decorated style in the county. The fine south transept, with its horseshoe south window, is now undergoing restoration under the supervision of Mr. William Weir.

Skirting Salhouse, sufficient time to stop not being available, the opportunity was taken of making a detour through the beautifully wooded and undulating country adjacent, known as the garden of Norfolk, and thence to "Glavenside" for tea, at the invitation of Mr. Sidney Cozens-Hardy, who with his nieces, the Misses Colman, welcomed us. When Mr. Milburn and Mr. Arthur Keen had tendered our thanks we viewed the grounds with their interesting water gardens.



At 5.15 we started on our return journey to Norwich, which was reached shortly after 6 o'clock, having visited under the most pleasant conditions a part of Norfolk rich in varied interests to all lovers of art and nature.

G. C.

### THE NORFOLK BROADS, REGATTA ON WROXHAM BROAD, RANWORTH CHURCH.

#### TOUR No. 3.

A party of 70 left Norwich by motor bus on what was looked upon as a holiday trip, but which proved to be a tour full of interest to architects and which gave a wonderful insight into the spirit of Norfolk and the life of the Broadland folk.

The buses crossed the beautiful Mousehold Heath, from which a fine view of Norwich was obtained, and traversed the rolling park of Rackheath Hall, with its drive of rhododendrons and Scotch firs and its Italian renaissance front. An item of interest was the Manor Farm, Wroxham, almost unique in being a complete small six-roomed house of the seventeenth century, with stone pedimented and mullioned windows.

Leaving the buses at Wroxham, the party crossed Mr. H. L. Clark's lawns and embarked on a large motor-launch which, with an almost noiseless engine, glided past bungalows, wooded shores, and grass hills sloping down to the river on the way to Wroxham Broad. As the whole stretch of the Broad opened into view, a cluster of white yachts and motor cruisers half-a-mile ahead, with the sails of racing yachts hoisted, made a delightful picture against the dark green background of trees, with the red and white flags of buoys marking the course in the foreground.

The launch brought up alongside the houseboat of the Yare and Bure Sailing Club, a floating club-house which attends all the regattas, and the Conference members were welcomed on board by the Commodore, who also holds the position of Lord Mayor of Norwich. A regatta followed, specially arranged for the occasion by the party's guide, and it says a great deal for the sportsmanship of racing men that as many as thirteen boats started in one race, and that, in order to be present, some of these boats had to make an 80 mile passage, out and home, in two days.

Several members had a sail on a Norfolk wherry, obtaining an excellent view of the races, and others went as crews in the racing boats, to receive a thrill, as each boat took in water over the side, there being a fresh sailing breeze. Boarding the launch again, the tour continued along the river Bure and through Salhouse Broad to Horning, where lunch was served at the Swan Hotel.

In the afternoon, the river journey was resumed past Horning village, being held up for several minutes whilst the ancient chain ferry crossed the river to bring two motor cars over, and downstream to Ranworth Broad. Landing at the Staithe, where the granaries form a Constable picture, a visit was paid to Ranworth church, where the vicar, the Rev. L. Everard, described the famous rood screen and unexpectedly produced a wonderful fourteenth century M.S. for which Pierpoint Morgan once offered

£10,000. The vicar was then impounded for the remainder of the trip and the passage to the ruins of St. Benet's Abbey and up the river Ant was made, through a beautiful marshland country absolutely unspoilt, with windmills making pictures that John Sell Cotman might have painted, but never improved upon.

The skill of the launch skipper caused some amusement when he turned the 65 foot launch in a 75 foot river without touching either bank, and the party finally said goodbye to the river at How Hill, the residence of Mr. E. T. Boardman. Mr. Boardman entertained the members to a delightful tea and a still more delightful walk through his country home. After tea the members left for Norwich by a road which gave a view of many of the portions of river visited earlier in the day and finally showed, from the heights of Mousehold, the old city with its cathedral, castle and many churches standing out against the sunset. Each member of the party was presented with a book containing 100 pictures of the Broad.

A. G. B.

### EAST BARSHAM HALL, RAYNHAM HALL, CASTLE ACRE PRIORY.

#### TOUR No. 4.

This tour had a long distance to cover, but a prompt start was made and the first stopping place, East Barsham Manor, was reached in advance of scheduled time. Mr. John Page, under whose supervision the house has recently been rendered habitable, gave a description of the building with the help of a large scale diagram. The house is chiefly of the sixteenth century, with courtyard and gatehouse. The great hall is in ruins but its oriel window still remains. The chief interest centres in the very rich terra cotta chimneys, ornamental medallions and moulded brickwork. The tower, or at any rate the lower portions of it, is of earlier date, as evidenced by the different type of brickwork. The brick jambs and mullions to the windows and doors were originally plastered in imitation of stonework; a practice not unusual in Norfolk.

Leaving Barsham we retraced our steps to Fakenham and thence we made for Raynham, where we were hospitably received by the Marchioness Townshend. A very able description of the building of this mansion was given by Mr. Bradfer Lawrence. We were shown the original building accounts, and it appears fairly certain that Sir Roger Townshend, having been on the Grand Tour, designed the building himself with the aid of two local masons, the brothers Edge. The building was commenced in 1619 and Sir Roger was then only in his twenties. He was friendly with Inigo Jones, and from a book still preserved at Raynham it is gathered that he made frequent journeys to London and submitted various questions to Inigo Jones for advice. The central feature of the east front may be a result of one of these visits. It can scarcely have been detailed by Inigo Jones nor does it look like the work of Kent, who was employed at Raynham round about 1730, but it might very possibly have been carried out by the brothers Edge from a sketch by Jones. After inspecting the house we took lunch on the lawn, had another walk round the outside, and then departed for Castle Acre Priory.



This Priory was founded by William de Warrenne, the remains of whose castle stand nearby, and was an offspring of the Cluniac house at Lewes, also founded by the same de Warrenne. The approach to the Priory is through a Tudor brick gatehouse only built a short time before the Dissolution. The chief glory to-day is the very complete remains of the Norman west front and the Prior's lodging at right angles to it. This latter building has two large and interesting oriel windows. It is still roofed and two rooms on the first floor reached by a picturesque but modern (more or less) external stair are well worth close inspection. One was the Prior's Chapel and contains a

richly ornamented piscina, the other his parlour with Tudor fireplace and the remains of colouring on the rafters and the above mentioned oriels. Castle Acre—Church, Priory and Castle—is a village worthy of a much longer visit than we could afford to give it. H.M. Office of Works are carrying out protective works at the Priory, and the place is consequently a great deal easier to understand than it was nine months ago.

Swaffham was merely a place for tea—no time for sightseeing—and thence back to Norwich and so to the Banquet.

F. H. S.

## An Impression of the Conference

BY JOHN D. CLARKE [F.]

The Conference at Norwich was a complete success. There were three thoroughly enjoyable days leaving behind them lasting impressions of trivial and amusing things, brilliant functions, witty conversations spiced with architectural scandal, beautiful buildings, charming hosts, and the spectacle of architects in holiday mood from all parts of Britain, the colonies and dominions, meeting together in one of England's oldest cities for sociability and refreshment, and to rub shoulders with other members of their profession.

To those whose onerous task it was to make the arrangements for the Conference, to those at the R.I.B.A. headquarters, to those at Norwich, we offer grateful thanks for all their efforts. Their work was well done and truly appreciated. They even chose days on which the weather was perfect, for Norwich was fortunate enough to miss the storms that visited other parts of England during that time.

It is not my job, fortunately, to describe the proceedings of the Conference. All I am concerned with is to record a few of the impressions carried away by a practising architect whose work is principally in the broad acres of the home counties, and who too seldom comes into contact with his brother architects.

On the way to Norwich there was a night in town heralded by a terrific thunderstorm, which made but little disturbance in an architect's home north of London. Curiously interesting are architects' homes. In them are odd familiar things; an etching of a modern building, a delicate gilded Regency overmantel with ionic pilasters, an old black framed print of a distinguished looking gentleman with tousled hair, dressed in the style of a hundred years ago and signed "John Soane, author of *Designs of Buildings*," a technical journal, books, and an air of spiritual rather than material comfort. The effect is rare and exciting. A similar effect is produced by Hardy when he mentions in his novels professional things and phrases, such as "Dumpy Levels" and "Running Dimensions."

The main road to Norwich is not a very interesting one, but the *Building News* very thoughtfully published a map giving an alternative or "Architects'" route, and this proved to be a very good one, passing through characteristic villages, brick in Essex, flint further on, coloured plaster and thatch near Norwich, and on the outskirts of Newmarket, a memorial designed by Rickards in 1910 to the memory of a local celebrity; a jewel of a memorial, elliptical on plan and a perfect example of Rickards' genius for design in the round. Like all his work, it exhibits no trace of the drawing board, but has the modelled look of sculpture. In that respect it has the same qualities as St. Paul's, and this was doubtless due to Rickards' natural gift for draughtsmanship and to his ability in drawing curves.

Being elliptical, each view changes smoothly and imperceptibly as you walk round it. The abruptness of a rectangular monument is avoided and also the monotony of a circular one. It is impossible not to compare this with some of the great War memorials designed in planes and expressing immobility and death, whereas the curves of Rickards' work express movement and life and so achieve the real object of any memorial, which is to keep alive a memory.

After entering the city of Norwich and negotiating the awkward entrance to the courtyard of an old coaching inn, impressions of the Conference began to register, but not too rapidly. That was one of the successes of the organisers. They did not provide more than the ordinary mortal could digest, except possibly, at the banquet. An informal reception gave the opportunity of members meeting. The next morning, the Lord Mayor of Norwich officially opened the proceedings at which a paper was given on regional planning, specially referring to Norfolk, with following speeches by members from Australia, Canada and West Africa. In the evening another reception by the Lord Mayor, and this time—formal, brilliant and dazzling—all Norwich was there to meet and welcome



the curious architect people. The guests were received by the Lord Mayor and Lady Mayoress and Sir Banister and Lady Fletcher. One pleasant memory of the reception was the R.I.B.A. President's welcoming smile. 'It was so full of kindness and geniality that it must have left a delightful impression on the Norwich people. The background of the reception was the architecturally interesting castle, used as a museum, and those not interested in dancing could amuse themselves amongst the stuffed birds. After the reception—a little architectural gossip and scandal in the smoking room of an old inn and the hospitality of the editor of a technical journal who astonished the bar by ordering for his guests a gallon of Norfolk ale.

The sightseeing was diversified and admirably arranged so that it pleased everybody. Some spent a day on the Broads and enjoyed it, and others went to look at buildings. The tour that took in Cawston and Salle churches and Blickling Hall was one of the pleasantest. It was leisurely, and the mixture of ecclesiastical and domestic architecture was just right. Mr. Gorch very kindly came a long, tiring journey to talk to the visitors about Blickling. His notes were full of information and he has the rare and happy gift of making historical and archaeological facts interesting. He "gets it over," as they say. But even his enthusiasm could not make me see Blickling as great architecture. In common with many other big Jacobean houses, it impressed me as having been designed by second-rate men who had at their elbow books of examples of first-rate architecture from which they liberally helped themselves. In many ways, the Jacobean period is not unlike our own, and the modern Inigo Jones may at this moment be studying not Italian work, but Scandinavian or German.

Norfolk is famed for its churches and its old wayside inns, but is it a sign of the times that the fabric of

both seems rather neglected? Cawston and Salle churches are beautiful and those who have the care of them obviously love them, but funds are not available for proper repairs. The beetle is active in the fine old painted screens which will be lost in a few years unless something is done about them. A famous old late Jacobean inn near Norwich is tumbling to pieces at the back. In the front it was cheery enough with charabancs and paper streamers, and a man in a bowler hat playing a tin whistle.

After the day's sightseeing, the climax of the Conference—the banquet. The setting of the banquet was magnificently architectural in the nave of the church of the "Preaching Friars." Round the walls were fine paintings of famous men of Norwich, the surroundings were satisfying and the speeches were excellent. Mr. Kitson's speech, especially, was full of wit and scholarly wisdom. The Dean of Norwich proposed "The R.I.B.A. and its Allied Societies" and gave out a suggestion for the assessing of architectural competitions. It was that the assessor should choose the three best designs and that the promoters of the competition should be at liberty to select from any one of those three the one they preferred, their decision being final. A number of corporations would welcome this method and if it were adopted, there would be many more competitions than there are now, but the Dean's suggestion is open to grave objections and might be liable to defeat the object for which the competition is held and that is to carry out the best design.

After the banquet the Conference began to break up. Everyone seems to have enjoyed it, but where were the great ones of the profession, the R.A.'s, and the Gold Medallists? They ought to have been there to take part in a refreshing and stimulating experience.

## Impressions of the Conference by Overseas Visitors

(1) SIR JOHN SULMAN [F].

As an overseas member of the Institute, permit me to offer my congratulations to the Council, and to the Norfolk and Norwich Association of Architects, on the success of the recent Congress; and to express the hope that it will continue to be repeated annually. Such meetings are of the greatest value in bringing together members of the profession who would not otherwise be likely to meet, and thus help to stimulate the *esprit de corps* so necessary in the life of the present day.

To those of us who spend our lives in industrial towns, or in the modern surroundings of the Colonies,

a visit to a city of historic interest like Norwich is most stimulating and refreshing, especially when one is received with such wholehearted kindness and hospitality as we have recently experienced. On the other hand, an occasional visit might be made with advantage to an industrial centre, where the architectural problems of to-day are in course of solution, or even to one of the Dominions. The latter would be of special value at the present time, when it is very desirable to strengthen the links of mutual helpfulness and goodwill which are still characteristic of nearly all parts of the British Empire.



(2) RODNEY H. ALSOP [*F.*].

IT is rather difficult to concentrate and write a clear description of the impressions produced by the Norwich Conference immediately after it is over, as the time was so full there that further time is needed to allow the mind to sort out the various events that crowded the days and nights. This is particularly so when one has just disembarked from a long sea voyage, at a port such as Naples, spent a few very busy days in Rome and Paris, and arrived in London just in time to drive straight to the Norfolk capital. It was Ascot day, and it rained. Such rain, accompanied by thunder and lightning, might be seen in Malaya or Queensland or Western Australia, but is hardly to be expected in England. Driving out of London, the roads were literally rivers, with stranded trams and buses and cars forming islands. As the country was approached the rain ceased, and instead of the flat marshy country one expected, there passed by the beautiful green, undulating pastures, charmingly unspoilt villages, and excellent roads.

Norwich, a cathedral city. One pictured a delightful sleepy town set in a quiet countryside dotted with slumbering hamlets. Not at all. Norwich is busy, it is very much awake; the country is busy, it is also awake—the very churches have towers that sit up on end and look at you, as I once read "like rabbits with their ears cocked." Healthy and wholesome and full of life is the impression Norwich creates, and it appears to be no false impression. If one can judge by the energy and thoroughness of the Conference Committee, then it certainly is none. If ever a Conference was kept busy it was this one, and the excellence of the organisation was outstanding.

The informal Reception by the Norfolk and Norwich Association provided a very enjoyable opportunity of renewing old and beginning new friendships for it is meeting firsthand the members of his own profession in the Mother Country that provides one of the greatest pleasures to a person living in a far distant dominion. Mr. Harding Thompson's paper on Regional Planning emphasised the difference in the problems that confront those living in a densely populated island and those in a country almost the size of Europe, containing a population about half that of London.

I have never been in a city that appears to have more churches for its size than Norwich apart from the Cathedral. Everywhere one turns there is a church, and I understand that at one time there were more inns even than churches. Of the latter, one of the finest is St. Peter Mancroft, which has a fine

spaciousness, a very interesting and satisfying wooden roof, and charming detail.

The first day in Norwich was very full indeed, and the organisers of the Conference were determined that nothing should be missed. I can only speak of the particular visit that I went to on the Thursday afternoon during which we were shown over Strangers' Hall, the Guildhall, St. Peter Mancroft, Bridewell, St. Peter Hungate and Princes Street, under the able direction of Mr. Cotman and Mr. Basil Cozens-Hardy. Those who chose any one of the alternative visit seemed to find equal enjoyment, and returned full of enthusiasm for the delightful city. The fact that there were five alternative programmes and about half an hour only was allowed for any one item, where days full of interest could be spent, only shows how full of good things Norwich is. The Lord Mayor's reception in the Castle stands out in the memory, the old masonry walls forming a fine background to the bright dresses and uniforms. The Castle Yard, which was opened to the visitors, was very beautiful in the evening light. Norwich stands out also as being one of the most difficult cities in which to find your way that can be imagined. Genoa is difficult, the Palace of Minos had a basement storey that is even more so, but those appear simple compared with Norwich. After the direct lay-out of most colonial towns, it is a veritable maze of winding streets and lanes.

On the Friday, we were taken into the country, and it was a most delightful day. Again there were several alternative trips, each full of interest. Melton Constable, Binham Priory, The Broads, Castle Acre and other famous places, and the charming house and garden of the Cozens-Hardys where we were entertained to tea.

Judging by the way members of the various parties produced sketch books and sat down to work in concealed corners, their confidence in those responsible for their safe return was very great.

The Banquet gave us the chance of seeing the members of the Conference together again and hear their varying experiences, and it fittingly closed the official entertainments, leaving the remainder of the time for further study of the Cathedral, the city and the district surrounding it. When ultimately one tore oneself away from these delightful places, one felt that the thoughts of them in the future would always recall those colleagues from all parts of the British Empire with whom one was associated during the Conference. Those of us from afar felt very privileged to have with us men whose names are household words in every architect's office.



## LIST OF ATTENDANCES AT THE CONFERENCE

Among the members and their guests attending the Conference events were the following:—

Professor Patrick Abercrombie, M.A. [F.]; Mr. N. G. Abercrombie; Mr. T. C. Agutter [R.F.]; Mr. A. R. Allen-Lodge [A.]; Mrs. A. R. Allen-Lodge; Mr. Rodney H. Alsop [F.] (Vice-President, Royal Victorian Institute of Architects representing the Australian Institute of Architects and the Royal Victorian Institute of Architects); Mrs. Rodney H. Alsop; Mr. J. G. Ambrose; Mrs. J. G. Ambrose; Mr. G. H. Anderson; Mr. George W. Atkinson [F.]; Mrs. George W. Atkinson; Mr. H. E. Ayris [L.] (Hon. Secretary, Cumberland Branch, Northern Architectural Association).

Mr. Phil Back; Mrs. Phil Back; Mrs. Bainbridge; Mr. F. G. Baker (Chief Clerk, R.I.B.A.); Mr. Christian Barman; Mr. A. E. Batzer [A.]; Mrs. A. E. Batzer; Mr. Ralph W. Bedingfield [A.]; Mr. A. G. Berry [A.]; Mrs. A. G. Berry; Mr. Eric L. Bird [A.]; Dr. R. Blair; Mrs. R. Blair; Dr. Bland; Mr. H. C. W. Blyth [L.]; Mr. E. T. Boardman [F.]; Mrs. E. T. Boardman; Mr. J. Owen Bond [F.]; Mr. R. O. Bond; Miss M. Bond; Mr. Cyril Edward Bradbury; Mr. Walter Brand [A.] (President, Leicester and Leicestershire Society of Architects); Mr. F. A. Broadhead [A.]; Mrs. F. A. Broadhead; Mr. Charles John Brown; Mrs. Charles John Brown; Mr. G. P. Brown; Mrs. G. P. Brown; Mr. W. G. Buck [F.] (President, Sheffield, South Yorkshire and District Society of Architects and Surveyors); Mrs. W. G. Buck; Mr. Claude S. Buckingham; Mrs. Claude S. Buckingham; Mr. E. H. Buckingham [F.] (President-elect, Norfolk and Norwich Association of Architects); Mrs. E. H. Buckingham; Mr. G. S. Buckingham; Miss M. Buckingham; Mr. Edward Bullard; Mrs. Edward Bullard; Mr. Ernest Bullard; Mrs. Ernest Bullard; Miss Bullard; Mr. Irwin Bullock; Mr. Willoughby Bullock; Mrs. Willoughby Bullock; Mr. Charles Bunting; Mrs. Charles Bunting; Mr. J. E. Burton [L.]; Mrs. J. E. Burton.

Mr. A. Lorne Campbell [F.]; Mr. William Carless [F.]; Mrs. William Carless; Mr. J. L. Carnell [F.]; Mrs. J. L. Carnell; Lieut.-Col. H. P. Cart de Lafontaine, O.B.E., T.D. [A.]; Mr. J. A. Charles [F.] (representative of the Barrow-in-Furness Corporation); Mrs. J. A. Charles; Mr. James F. H. Checkley; Mrs. King Churchouse; Mr. John D. Clarke [F.]; Mr. R. M. Close (Ulster Society of Architects); Mr. Eustace Cohen (Past President of the Royal Institute of Architects of Western Australia; representing the Royal Institute of the Architects of Western Australia); Mrs. Eustace G. Cohen; Mr. R. A. Cooksey [A.]; Mrs. R. A. Cooksey; Mr. H. A. Cooper [F.]; Mr. A. M. Cotman; Mr. Graeme Cotman [F.]; Miss G. Cotman; Miss Doris Coward; Mr. Herbert A. Cox; Mr. S. Cozens-Hardy; Miss Cozens-Hardy; Mr. Philip H. Cundall [A.]; Mr. H. C. E. Curtis.

Mr. C. H. Dann [A.]; Mr. G. Davey; Mr. J. Gordon Davies; Mrs. Gordon Davies; Mr. T. Raiffes Davison [Hon. A.]; Mr. John L. Denman [F.]; Mrs. John L. Denman; Mr. F. M. Dewing; Mr. B. H. Durrant; Mrs. B. H. Durrant.

Mr. A. W. Ecclestone [L.]; Mrs. A. W. Ecclestone; Mr. J. H. Elder-Duncan.

Mr. W. H. Elks; Sir Banister Fletcher, F.S.A. (President, R.I.B.A.); Lady Fletcher.

Mr. C. H. Gale [A.]; Mrs. C. H. Gale; Miss Gale; Mr. Frank Garland; Mrs. Frank Garland; Mr. A. M. Giles; Mr. H. J. T. Gowen; Mrs. H. J. T. Gowen; Miss M. A. Gowen; Mr. Andrew L. Gray; Mr. Hastwell Grayson, M.A. [F.].

Captain Herbert Haines; Miss Virginia Hamil; Mr. H. C. Hare; Mr. F. C. Hargrave; Mr. V. Harston; Mrs. V. Harston; Mr. F. R. B. Haward [F.]; Mr. F. G. Hicks [F.] (President, Royal Institute of the Architects of Ireland); Miss Violet

Hicks; Mr. E. Percy Hinde [F.]; Mrs. E. Percy Hinde; Miss Hodge; Mr. E. G. Holton [F.]; Mr. Francis Hooper [F.]; Mr. George Hubbard, F.S.A. [R.F.]; Miss E. K. D. Hughes [A.]; Mr. H. C. Hughes [F.]; Mr. V. C. Hunt [A.]; Miss Dorothy Ingmere; Mr. A. Linton Iredale [L.].

Miss D. G. Jacobs; Mr. E. R. Jarrett [A.]; Mr. T. Foster Johnson [L.]; Mrs. Foster Johnson; Miss A. F. Jones, M.A. [A.].

Mr. Arthur Keen [F.]; Mrs. Arthur Keen; Mr. H. G. Kemp; Mrs. H. G. Kemp; Mr. E. Beztram Kirby, O.B.E. [F.]; Mrs. Robert Kirk; Mr. Sydney D. Kitson, M.A., F.S.A. [F.] (Hon. Secretary R.I.B.A.); Mrs. Sydney D. Kitson.

Mr. Henry J. Leaning; Mrs. Henry J. Leaning; Mr. V. G. Lilley; Mr. F. Lishman [F.]; Mr. C. L. Lister; Mr. S. G. Livock [F.]; Mrs. S. G. Livock; Mr. R. Goulburn Lovell [A.] (Hon. General Secretary, South Eastern Society of Architects); Mr. J. Archibald Lucas [F.]; Mrs. J. Archibald Lucas; Miss Lucas.

Mr. Ian MacAlister, M.A. (Secretary, R.I.B.A.); Mrs. Ian MacAlister; Mr. P. R. McLaren [L.]; Mrs. Marion McLaren; Mr. C. Stanbury Madeley [A.] (Joint Hon. Secretary, Birmingham Architectural Association); Captain J. A. Muir; Mrs. J. A. Muir; Mrs. C. R. T. Marrin; Miss Elfrida Mason; Miss Hilda Mason [A.]; Mrs. Maxwell; Mr. Claude J. W. Messent [A.]; Mr. T. R. Milburn [F.]; Mrs. T. R. Milburn; Miss Milburn; Mr. A. H. Moberly, M.A. [F.]; Mrs. A. H. Moberly; Mr. H. Greville Montgomery, J.P. [Hon. A.]; Mrs. H. Greville Montgomery; Miss Montgomery; Miss Montgomery; Mr. B. B. Morgan; Mrs. B. B. Morgan; Mr. Moyle; Mrs. Moyle.

Mr. H. Neale.

Mr. Arthur S. Oswald.

Mr. John Page, B.A. [A.]; Mrs. John Page; Mr. W. T. Plume [Hon. A.].

Mr. Stanley C. Ramsey [F.]; Mr. Thomas Rayson [F.] (Hon. Secretary, Oxford Society of Architects); Mr. E. P. Rennie; Mr. H. Whittaman Rising [F.]; Mr. Readley-Simkin; Mrs. Readley-Simkin.

Miss E. Sadler; Mr. Augustus F. Scott; Mrs. Augustus F. Scott; Miss Elizabeth Scott [A.]; Mr. Eric W. B. Scott [F.] (Hon. Secretary, Norfolk and Norwich Association of Architects); Mrs. Eric Scott; Mr. T. E. Scott [F.]; Mr. Theodore Gilbert Scott, M.C. [F.]; Mrs. Theodore Gilbert Scott; Mr. J. Seddon [A.]; Mrs. J. Seddon; Miss J. Sewell; Mr. C. J. Shred; Mr. Eric H. Skipper [A.]; Mrs. Eric H. Skipper; Mr. F. W. Skipper; Mrs. F. W. Skipper; Mr. G. J. Skipper [F.]; Mrs. G. J. Skipper; Mr. J. Alan Slater, M.A. [F.]; Mrs. J. Alan Slater; Mr. Lamport Smith; Mr. H. T. B. Spencer [A.]; Mr. C. H. Strange [F.]; Mrs. C. H. Strange; Sir John Sulman [F.]; Lady Sulman; Miss Sulman; Mr. H. Ralph Surridge; Mr. W. Lincoln Sutton; Mr. F. H. Swindells [A.]; Mrs. F. H. Swindells.

Mrs. Tarbet; Mr. Ernest Taylor; Mr. Edwin J. Tench [F.]; Mr. W. Harding Thompson, M.C. [F.]; Mr. L. M. Thorn; Mr. C. H. Thurston; Mr. William Henry Town [A.]; Miss Tracey; Mr. Laurence A. Turner, F.S.A. [Hon. A.]; Mrs. Laurence A. Turner.

Mr. Cecil Upcher [F.]; Mrs. Cecil Upcher.

Mr. H. J. Venning [A.].

Mr. R. B. Walker [A.]; Mrs. R. B. Walker; Miss M. E. Watson; Mr. Stanley J. Wearing [F.] (President, Norfolk and Norwich Association of Architects); Mrs. Stanley Wearing; Mr. Gordon M. West (Hon. Treasurer of the Royal Architectural Institute of Canada, Vice-President of the Ontario Association of Architects; representing the Royal Architectural Institute of Canada, and the Ontario Association of Architects); Mr. F. R. White [L.]; Mr. George H. Widdows [F.]; Mrs.



George H. Widdows ; Mr. T. B. M. Wightman [*F.*] (Australia) ; Mr. Victor Wilkins [*F.*] ; Mrs. Victor Wilkins ; Mr. C. J. Wilkinson ; Miss E. C. Wilkinson ; Mr. H. E. Williams ; Mr. P. H. Winter [*J.*] ; Mrs. Wiseman ; Mr. W. L. Wood ; Miss M. A. Wright ; Mr. Raymond C. Wrinch [*A.*] ; Miss Beris Wrinch.

Mr. J. Victor Yates [*L.*] ; Mrs. J. Victor Yates ; Mr. Thomas C. Yates [*A.*] ; Mr. C. W. Yelf ; Mrs. Yelf ; Mr. F. R. Yerbury [*Hon. A.*] (Secretary, The Architectural Association) ; Mr. E. Alex. Young [*A.*] ; Mrs. E. Alex. Young.

During the Conference the following message was received from Mr. C. Rand Overy, the President of the East Africa Institute of Architects :—

"CONVEY TO PRESIDENT ANNUAL CONFERENCE BEST WISHES EVERY SUCCESS REGRET UNAVOIDABLE ABSENCE PRESIDENT EAST AFRICA INSTITUTE."

### THE CONFERENCE HANDBOOK.

An excellent handbook for delegates to the Conference was issued by the Norfolk and Norwich Association of Architects under the editorship of Mr. Theodore G. Scott, M.C. [*F.*]. The handbook contained among other things articles on "Georgian Norwich," by Stanley J. Wearing [*F.*], the President of the Norfolk and Norwich Association of Architects ; "The Cathedral," by the Dean, the Very Rev. Dr. D. H. S. Cranage [*Hon. A.*] ; "Norwich Past and Present," by George A. Stephen, F.L.A. ; "Elm Hill," by E. W. B. Scott [*F.*] ; and "The City Walls," by Percy A. Nash. It was illustrated by a number of delightful photographs of Norwich and the neighbourhood, of which we reproduce several in this issue by the courtesy of the publishers.

### CONFERENCE PHOTOGRAPH

Copies of the Conference Group photograph taken at St. Andrew's Hall, Norwich, on Thursday, 10 June, can be obtained from Messrs. Panorama, Ltd., 56-58, Eagle Street, Southampton Row, London, W.C.1, price 4s. each.



WYMONDHAM MARKET CROSS



## English Church Art

BY C. F. ANNESLEY VOYSEY [F.S.A.]

A comparison between the English Mediæval Art Exhibition now on view at the Victoria and Albert Museum and the recent Modern Church Art Exhibition in Caxton Hall should be most interesting and instructive, if not saddening.

Taking a general view of each, we are induced to feel that the mediæval men did their work as if it were a form of worship, whereas the modern workers as if it were a competing form of play, hoping it may please and pay. This feeling is intensified when we observe that the ancients, when representing angels in illuminations, stained glass, embroidery, wall decoration and other crafts, always showed them without any definite indication of sex; while the modern designer invariably makes his angels feminine, of the barmaid type, forgetting that man in his most exalted moods is divorced from the lusts of the flesh for the time being. He does not associate a buxom female of a beefsteak complexion with the angelic state. The ethereal quality is pitifully wanting at Caxton Hall.

Mr. J. N. Cornper has an embroidered banner the angels of which are of the true spiritual breed. And his cope hood shows very delicate and beautiful religious feeling. No exhibitor shows this feeling more often or more sincerely than Mr. W. Bainbridge Reynolds.

There is one great sin that is found among the embroideries in both exhibitions. That is, embroidery is worked over brocade. Pattern on pattern must be wrong; for if the pattern is a good one it is marred by mutilation. If it is not a good one, why have it at all? In the Mediæval Exhibition there are thirty-two copes, and only eight have embroidery on brocade. William Morris was an arch-sinner in this matter and has led many thoughtless workers to imitate him out of veneration for his taste generally—showing how dangerous hero worship is.

The desire for richness of effect is made the excuse for putting pattern on pattern. But when analysed we find it is purely a sensuous wish: and a certain destroyer of dignified simplicity. Like over-elaboration, it hides many defects in a debauch of feeling.

Stained glass design is copiously represented at Caxton Hall by many charming cartoons, mostly by Mr. R. Anning Bell. In the Mediæval Exhibition there is only a small quantity of actual glass, fragments that will not illustrate the points raised by the examples in the Modern collection. The point is that the modern glass designer does not show sufficient sympathy for the structure of which his glass is to be a part. He forgets that the first object of a window is to shut out the weather, and the second is to let in the light. The lead and the saddle bars are the ramparts against wind and rain. He regards the tracery of the window as an obstructing nuisance, often committing the heinous offence of carrying the subject matter in one light behind the tracery into the neighbouring lights. He fails to realise that by bringing his coloured glass tight up to the masonry he makes the mullions and tracery look much thinner than it is, thus destroying the protective character of his window.

The mediæval glass painters invariably put a narrow line of more or less clear glass between the mullions and their window. Happily, Mr. R. Anning Bell has observed this excellent rule very frequently.

Another very common fault found in modern work, but not in mediæval, is the shading and so making to look *solid* the heads, limbs, and drapery. By this practice windows lose their character of translucent planes, wedded to main walls, and become, instead, competitors with painters' pictures.

Thus we have brought out into prominence by these two exhibitions three fundamental factors in the formation of all the Arts: sexless angels, mediæval restraint, especially in embroidery, and structural quality in glass work.

Now to turn from the general to the more particular and personal. We find it difficult and invidious to pick and chose whom to name, so many are on the border-line of excellence. And in an exhibition where all the crafts are represented, it is hard to say which of the crafts should be mentioned first. Much dispute would arise if anyone ventured to tabulate the crafts in the order of their importance. So it shall not be attempted here.

Mr. Graily Hewitt and his coadjutors deserve great praise for their illuminated manuscripts, and must we not add the name of Miss Jessie Bayes, whose work is exquisitely tender and full of poetic imagination, but wanting in technical accuracy and tidiness. But the very best illuminations of to-day are not as full of noble feeling and intense expression as those which we find in the mediæval collection.

For the drawing of heraldry, of which there is a very great deal at Caxton Hall, Mr. G. E. Kruger Gray still heads the little list in quite a remarkable manner. The many banners scattered about the place are a pleasant and dominating decoration, but hardly repay careful inspection, and as a striking decorative feature of the exhibition they fall miserably below the standard set by the frieze of bronze memorial slabs of the mediæval men.

In the first room at Caxton Hall, the writer was forcibly struck by the simplicity, grace and dignity of the two wrought-iron gilt sacristy candlesticks by Mr. W. Bainbridge Reynolds. Dignity, beauty and simplicity are also shown by the processional cross of Mr. Laurence A. Turner and the altar cross by Mr. Cecil Thomas. Mr. Turner also shows two carved and coloured memorial tablets which are most excellent and in which the heraldry is most pleasantly rendered.

Some altar frontals there are made of woven material, with patterns entirely suitable for dining room curtains, generously rich in effect but utterly devoid of ecclesiastical character. Nevertheless, to be commended because not cut up and mutilated by the conventional vertical strips so frequently applied in contrasting colour.

Finally, we must tender our thanks to Mr. G. E. Kruger Gray for the cover of "The Festival Handbook," the substitute for the catalogue of the Church Art Exhibition, which is brilliant and charming in every way and makes us wonder why the cover of the catalogue of the Mediæval Exhibition is just the reverse and is quite hideous in colour and form; and yet the arrangement of the exhibits in the North Court of the Museum shows the best possible taste and skill.



# Correspondence

## EASEMENTS OF LIGHT.

39, Maddox Street,  
London, W.1.  
26 June 1930.

To the Editor, JOURNAL R.I.B.A.—

SIR,—At the conclusion of his letter of the 14th instant, Mr. Waldram refers to an alleged suggestion by me that the Courts will not protect the rights of those who, being poor, are compelled to work or live in overbuilt localities. I should like to point out that I did not suggest this and that I would not contend anything so contrary to the principles of common justice. My view is that the Courts will most certainly protect easements of light in property, in which poor people are obliged to work or live, to the extent of securing for the occupiers the enjoyment of the minimum of adequacy for the purposes of vision, provided that so much light entered the premises under the original conditions. The only question under consideration is not whether the Courts would protect the rights of the poor, but whether they would decide that one of the advantages for which additional money is paid in the case of the most valuable and most favoured property is a better standard of daylight illumination than the minimum of adequacy, as well as a better standard in respect of other amenities. The opinion of Lord Loreburn in the well known Court of Appeal case, *Jolly v. Kine, 1907*, viz., that the right of the owner or occupier of a dominant tenement to an easement of light is only in respect of so much of the light as will suffice for the ordinary purposes of inhabitancy or business according to the locality or surroundings, naturally leads ordinary practitioners to infer that the situation and the value of the site are not immaterial factors.

In one respect at least I may claim to stand on the same ground as Mr. Waldram, inasmuch as I too make no pretence to be a lawyer. As a layman, therefore, I think that, beyond making passing reference to such interesting points as these, it is best for both architects and surveyors to refrain from trespassing too far into the domain of those who are accustomed to lead at the Bar and advise clients regarding matters of this kind. It always seems to me that our duty is to deal with questions of fact rather than matters of law and to concentrate our attention on the best methods of presenting data in a clear and indisputable manner, that will eliminate all possibility of misconception as to the actual circumstances.—Yours faithfully,

JOHN SWABBRICK [F.]

## THE EDUCATION OF AN ARCHITECT.

The following letter from Mr. W. S. Porchon, M.A. [A.], Head of the Welsh School of Architecture, was published in "The Times" of 7 July:—

To the Editor of "The Times."

SIR,—In your recent account of the International Building Conference, Lord Eusance Percy is reported as having stated that "in this country there was one great weakness in our technical education, and that was the severance, sometimes almost hostility, between the art college and the technical college, and that conflict was fought out over the body of industry. The architect was torn between the conflicting

claims of the art college and the technical college. They could not provide the training necessary unless they brought the art and technological sides together and eliminated all conflicts and suspicions."

This does not seem to me to put fairly the present position of architectural education in Great Britain, and while it would not be fitting for me to speak of the work in that direction which has been carried out in Wales, I may perhaps be permitted to say a word with reference to the development of architectural education in England and Scotland during the last 20 years or so.

I feel very strongly that an investigation of the facilities for higher professional education for architects in England and Scotland would bring to the investigator's mind not a picture of conflict and suspicion, nor, in fact, of any tending process whatever, but one of a far more harmonious and prosperous state of things. It is a remarkable fact that during a very short period a considerable number of schools of architecture have reached a high state of attainment in institutions of very different types. One, for instance, is in one of the older universities, a number are in the newer universities, another forms a monotechnic, while others are established in polytechnics, technical colleges and schools of arts.

In each of these schools of architecture, while improvements may be necessary and will no doubt be achieved in due course in various cases, striking features are the successful co-ordination of the various necessary courses and the general high standard of attainment reached by the students in work which shows distinction on the "artistic" side and notable efficiency in matters normally called "technical."

For this undoubted success in the recent striking developments of architectural education in England and Scotland we have mainly to thank the Royal Institute of British Architects, which through its Board of Architectural Education administers a great scheme of scholarships and other awards culminating in the Rome Prize in architecture, and a system of "recognition" of the work of the leading schools, safeguarding its high standards, and yet encouraging these institutions to develop with that freedom which is so necessary in true education.

## MR. H. CHALTON BRADSHAW [F.].

The Senate and the Council of the University of Liverpool conferred the honorary degree of Master of Architecture on Mr. H. Chalton Bradshaw [F.], Secretary of the Royal Fine Art Commission, in St. George's Hall, Liverpool, on Saturday, 5 July 1930.

In presenting Mr. Bradshaw for his degree the Public Orator (of the University, Professor Campagnac) said:—

"Mr. Vice-Chancellor, Harold Chalton Bradshaw is a son of Liverpool, a pupil of a Liverpool school, a student of our University. The architect of his own fortunes, he has helped to build the fame of his University, his school and his native place. His long and brilliant list of academic honours was crowned by the Rome Scholarship, in winning which he set an example and established a tradition happily followed by his successors in the School of Architecture."

The bright auguries which were prompted by the work which he did as a student have been justified by his achievements as a practitioner. He has been placed first in many competitions, and already he has completed buildings variously designed for their several purposes but all alike bearing the character of ingenuity, refinement and vigour.

He is an artist, a critic and a teacher. In the war he played his part in France and Belgium and Italy; in the amiable rivalries of peace he will bear our standard far and hold it high.

In the name of the Senate and of the Council I present to you HAROLD CHALTON BRADSHAW for the degree of Master of Architecture, *honoris causa*, in this University."



NOTES BY MEMBERS OF THE SCIENCE  
STANDING COMMITTEE.

## BARIUM PLASTER FOR X-RAY ROOMS.

The following information is extracted from the International Recommendations for X-Ray and Radium Protection (Stockholm, 1928), the British Journal of Radiology (September, 1928), the Physics Department Test Pamphlet (May, 1927), of the National Physical Laboratory, and a Note (May, 1930) of the Building Research Station, Department of Scientific and Industrial Research.

Barium plasters are made up of barium sulphate (the mineral barytes) and Portland cement. The greatest proportion of barytes practicable is 75 per cent. by volume or 85 per cent. by weight. The barytes should be graded, about two-thirds should be coarse and one-third finely ground. Instances of use are given at Manchester Infirmary, 1922, where the plaster contains 33 per cent., and Edinburgh Infirmary, 1925, containing 40 per cent. of barytes. The writer understands that the Cambridge School of Pathology, 1929, is a further instance, and that sand was here mixed with the barytes and cement.

The plaster, like other protective materials, is usually referred to lead as a standard of comparison, but the relation between the thickness of lead and the thickness of plaster which has equal protective value varies with the voltage employed; from 50,000 to 120,000 volts this relation remains fairly constant, but as the voltage increases to 200,000 volts the relative value of the plaster falls. For rough purposes, it may be said that the plaster should be about ten times as thick as lead for an equivalent effect. Precautions necessary vary with the continuous or intermittent use of an X-ray room, and with the use and nature of its surroundings. There appear to be too many technical factors to admit of a single specification for X-ray rooms generally, though a specification might be drawn up for the composition of the best plaster. The protective value which is required in a plaster surface is a matter to be decided by the medical staff and not by the architect. Where the thickness of barium plaster called for is considerable—much more than an inch—pre-cast slabs may be fixed to the wall, jointed with barium mortar. They may be then rendered with barium plaster as an additional precaution against leakage through the joints.

Some general information on X-ray rooms includes the suggestions that they should be above ground, well-windowed and ventilated, not less than 250 square feet in area, at least 11 feet high, have floors of insulating material such as linoleum, rubber or wood blocks, should be free from damp and decorated in light colours.

ALAN E. MUNBY [F].

## SAFETY BELTS IN WINDOW CLEANING.

The London Building Acts Committee desire to draw the attention of members to the desirability of providing in high buildings a means of fastening the safety belts

used by window cleaners, painters and workmen engaged in similar trades.

It has been represented to the Committee that such facilities are very necessary and are not often provided.

LOUIS BLANC,

*Hon. Secretary, London Building Acts Committee.*

## REOPENING OF ST. PAUL'S CATHEDRAL.

The King has been pleased to approve that the honour of Knighthood be conferred upon Mr. Mervyn Edmund Macarney, F.S.A., F.R.I.B.A., architect to the Dean and Chapter of St. Paul's Cathedral, on the occasion of the reopening of the Cathedral.

The King has also been pleased to make the following promotion in and appointment to the Royal Victorian Order:—

## TO BE KNIGHT COMMANDER

The Very Reverend William Ralph Inge, C.V.O., D.D., Dean of St. Paul's.

## TO BE COMMANDER

The Reverend Canon Sidney Arthur Alexander.

## THE FINE ART COMMISSION

The King has by Royal Warrant dated May 29 re-appointed Lord Crawford and Balcarres, who has retired on completion of his term of office on the Royal Fine Art Commission, as Chairman of the Commission; and has appointed similarly Sir Walter Peacock to be a Member of the Commission to fill the vacancy caused by the resignation of Mr. Dugald Sutherland MacColl.

## CHARING CROSS BRIDGE SCHEME.

The Council of the Royal Institute of British Architects have nominated Dr. Raymond Unwin (Vice-President) to represent the R.I.B.A. on the Advisory Committee appointed by the London County Council to prepare a scheme for a road bridge and approaches at Charing Cross.

## ARCHITECT'S GOLFING SOCIETY.

As announced in our last issue a proposal is on foot to form a golfing society in connection with the R.I.B.A. In the past members have from time to time arranged matches with the A.A., the Arts Club, the Master Builders' Federation, and other teams. It is now thought that these activities should be coordinated by the formation of an Architects' Golfing Society. The intention is to hold three or four meetings a year and to play matches against similar societies. The subscription to be 3s. per annum, students 2s. 6d.

The President, Sir Banister Fletcher, is personally interested in the proposal, and has most generously offered to give the Society, when formed, its first meeting at the Northwood Golf Course.

Will all architects wishing to join send their names, their lowest handicap at any club, and their subscription for the forthcoming year, to Mr. W. H. Ansell, at the R.I.B.A., 9 Conduit Street, W., he having consented to act as Honorary Secretary of the Society for the time being.



## Allied Societies

*(The attention of Members of the Allied Societies is particularly called to this page)*

### ESSEX, CAMBRIDGE AND HERTFORDSHIRE SOCIETY OF ARCHITECTS.

#### HERTFORDSHIRE CHAPTER.

The Chapter had a very interesting outing to Letchworth Garden City on the 14th June, when they were entertained to lunch by the directors of the First Garden City, Ltd., and afterwards were taken round the city by Mr. Barry Parker.

#### WEST ESSEX CHAPTER.

A joint conference between the Association of Head Masters of Secondary Schools in Essex and the West Essex Chapter of the Essex, Cambridge and Herts Society of Architects was held on Saturday, 14 June, at the Royal Liberty School, Gidea Park, to discuss the question of teaching architecture in our schools, this being the third of a series of conferences organised by the West Essex Chapter.

The chair was taken by Mr. S. B. Hartley, M.A., Headmaster of The Royal Liberty School and President of the Association of Headmasters of Secondary Schools in Essex.

Mr. Hartley, in welcoming the architects present, stated that they, the headmasters, had every sympathy with the question under discussion. Already, in the general training of the pupils under their charge they endeavoured to so mould character as to inculcate a love of the beautiful in all things, and they would listen with pleasure to any suggestions of the architects.

The discussion was opened on behalf of the West Essex Chapter by an address from Sir Charles Nicholson, Bart., M.A., F.R.I.B.A. He stated that the whole idea of treating the art of architecture as a school subject is comparatively a new one. Education may be defined as the art of learning, and should inculcate a sense of discipline and citizenship. A lack of discipline in education is likely to encourage selfishness, restlessness and half-heartedness in future life. He described the value of such discipline upon the work of the pupils in an Art School with which he is associated.

Architecture is of value as a general subject as well as a technical one. It is an integral part of history and can be studied at first hand, and an appreciation of line or proportion and colour seem to be an essential part of the knowledge of art. An intelligent appreciation of architecture by the general public, acquired in youth, would be all to the good and should prevent, in the future, ugly streets and buildings.

It is not anticipated that the school could or would be able to teach architecture, but by training, teach such appreciation of art and beauty that would conduce to a higher standard. An architectural genius may possibly arise out of such teaching. Giotto and William of Wykeham were peasant boys, Isaac Ware began life as a chimney sweep, Wren was an Oxford scholar. Genius will out, but what the schoolmaster has to do is to mould "ordinary clay."

Sir Charles then briefly detailed what work could be done by the pupils in the ordinary school work.

In conclusion he said, "I would concentrate first upon discipline, and then upon those subjects which your pupils will not have the opportunity of learning after they have left school."

Mr. Duncan W. Clark, A.R.I.B.A., President of the Essex, Cambridge and Herts Society of Architects, followed.

In opening his address, he assured the headmasters present that he did not presume to dictate to them the conduct of their own affairs. No idea was put forward for the teaching of architecture as a profession, but only for the appreciation of

the art in its widest sense, and from his association with the members of the teaching profession, especially in travels together in Greece and the East, he realised that they themselves were fully interested and competent to teach the rising generation an appreciation of architecture.

Without Art there would be no civilisation, and in the stress of those material days one felt that the refining influence of the beautiful was more than ever necessary.

Architecture was the mother of all the arts; and its study must include sculpture, painting and the allied decorative crafts. "Architecture is history written in stone"—this gave a historical value to the study of buildings and cities, as exemplified in Edinburgh and other old towns, the study of which show the turbulent times they had passed through. The history of Edinburgh can be read to-day in its buildings and the lay-out of the city. In these days, facilities for travel were so great and opportunities of study of the monuments of the past so many that the study of architecture became more than ever necessary.

They were all aware of the desecration of the countryside under the guise of progress, ribbon development, bungalow growth. The remedy could only be found in public opinion, and the younger generation could be trained to discriminate what was good building, and so to detest what was bad.

A discussion followed in which the following gentlemen took part:—For the Headmasters—Mr. S. B. Hartley, M.A., Mr. A. E. Diggins, Iford County High School, Mr. E. A. Loftus, Barking Abbey School, Mr. Midgley, Monoux Grammar School, Mr. A. F. Joseph, Wanstead High School, and Dr. C. Cuth, Leytonstone County High School. For the Architects—Mr. S. Phillip Dales, F.R.I.B.A., Chairman of the West Essex Chapter, Mr. Arthur C. Russell, I.R.I.B.A., Hon. Secretary of the Chapter.

### XIIth INTERNATIONAL CONGRESS OF ARCHITECTS IN BUDAPEST.

6-13, SEPTEMBER 1930.

The XIIth International Congress of Architects will be held in Budapest from 6 to 13 September 1930. We print below the chief items of interest in the programme.

*Friday, 5 September.*—6 p.m.—First meeting of Permanent International Committee of Architects.

*Saturday, 6 September.*—10 a.m.—Formal opening meeting in the great hall of the Hungarian Scientific Academy. 12 a.m.—Opening of the International Exhibition of Architectural Designs in the Picture Gallery. 3 p.m.—Opening of the Hungarian Section of the International Exhibition of Architectural Designs at the National Salon. 9 p.m.—Conversations, with dinner, of the members of the Congress, at the St. Gellért Hotel.

*Sunday, 7 September.*—11 a.m.—At the Royal Hungarian Joseph Technical University, greeting of the members of the Congress by the Rector. 4-6.30 p.m.—Motor car excursion to the hilly surroundings of Budapest; tea on the Svábhegy.

*Monday, 8 September.*—10 a.m.—Meeting of the respective groups at the headquarters of the Society of Hungarian Engineers and Architects to discuss: (1) Reform of the special training of architects in accordance with practical requirements, and with special regard to the skill expected from modern



architects in the domain of finances, economics and organisation. (2) Chambers of Architects and representative corporations of architects. 3 p.m.—Visit of the town in motor cars. 10 p.m.—Reception or evening party.

*Tuesday, 9 September.*—9.30 a.m.—Motor car trips to museums. 4.30 p.m.—Excursion to Margaret Island. 8 p.m.—Hungarian dinner (informal).

*Wednesday, 10 September.*—10 a.m.—Meeting of the respective committees, at the headquarters of the Society of Hungarian Engineers and Architects, to discuss: Protection of the artistic ownership of architects in international relations. (4) The role of the architects at industrial constructions. 4.30 p.m.—Lecture of architect Fritz Höger, Hamburg, in the great hall of the Hungarian Scientific Academy: "Present day German architectural style, with special regard to Brick Architecture." 6 p.m.—Lecture of Mr. N. M. Balanos, "directeur" of the Greek Ministry of Education in the great hall of the Hungarian Scientific Academy: "New findings and observations at the Akropolis at Athens." 9 p.m.—Evening party at the Artists' Club, "Pécsék."

*Thursday, 11 September.*—At the special invitation of the Royal Hungarian Ministry of Education excursion to Aquincum (ancient Roman town) and to Esztergom (seat of the Primate of Hungary).

*Friday, 12 September.*—10 a.m.—Meeting at the great hall of the Music Academy, to discuss: Architectural Acoustics. 12 a.m.—Lecture of Mr. Paul Ligeti in the little hall of the Music Academy: "Through history of art—to the new architecture." 4 p.m.—Lecture of Mr. George Oakley Totten at the headquarters of the Society of Hungarian Engineers and Architects about "The future development of Washington." 7.30 p.m.—Performance at the Royal Hungarian Opera: Carnival Wedding-fest.

*Saturday, 13 September.*—9.30 a.m.—Second meeting of the Permanent International Committee of Architects. 12 a.m.—Closing meeting of the Congress at the City Redoute. 8 p.m.—Farewell banquet.

Copies of the detailed programme containing particulars as to hotel accommodation, fees, costs of excursions, and membership application form, etc., can be obtained from Messrs. Thos. Cook and Son, Berkeley Street, London, W.1, who have been appointed Hotel and Travel Agents, or from Lt.-Col. H. P. Carr de Lafontaine, O.B.E. [A.I.], 11 Suffolk Street, Pall Mall, S.W.1.

#### ASSOCIATION OF SPECIAL LIBRARIES AND INFORMATION BUREAUX.

Those who require the services of a translator often experience difficulty in finding one who has both a knowledge of the language and also of the special subject concerned.

With the object of overcoming this difficulty the Council of the Association of Special Libraries and Information Bureaux recently appointed a committee consisting of Dr. S. C. Bradford, Librarian, The Science Library; Allan Gomme, Librarian, The Patent Office; Dr. R. S. Hutton, Director, British Non-Ferrous Metals Research Association; Miss A. L. Lawrence, M.B.E., M.A., LL.B., Intelligence Officer, British Medical Association; Brigadier-General Magnus Mowat, C.B.E., M.Inst.C.E., M.I.Mech.E., Secretary, Institution of Mechanical Engineers; and E. I. Robson, M.A., Librarian, Institute of Agricultural Engineering, to prepare a scheme for establishing a Panel of translators having both linguistic and technical qualifications, the part taken by the Association being to act as a connecting link between the translator and the user. Names of approved qualified persons are now being registered under the scheme adopted and those who are interested, in either capacity, are invited to write for particulars to the Secretary, Association of Special Libraries and Information Bureaux, 26 Bedford Square, London, W.C.1.

## Obituary

### THE LATE WILLIAM JOHN LOCKE

At the Sessional meeting on Monday, 26 May, the President, Sir Banister Fletcher, referred to the death of William J. Locke in the following terms: I deeply regret to have to announce the death of William John Locke, who was the Secretary of the R.I.B.A. from 1897 to 1907, when he was elected an Honorary Associate. Mr. Locke, who was a very old friend of mine, served the R.I.B.A. well, and he gained the affection and the esteem of all the members of the Institute. His books, as you know, make very pleasant reading and show a wide knowledge of life, particularly, I think, *The Morals of Marcus Ordeyne*, which was one of his "best sellers," I believe; and also, in my opinion, *The Beloved Vagabond*, because it was in that book he introduced that lovable personality—who was also an architect—Paragot, who at one time, as you will remember, was a Prix de Rome Student in Architecture. But he introduced architects, in one way or another, into many of his books. You will find a very appreciative notice, from an old friend of Locke, namely, Sir John Simpson, in the R.I.B.A. JOURNAL,\* so I need not enlarge upon his characteristics now.

He was a friend of many of you, and he was a very old and sincere friend of mine, and I was frequently a guest at that very beautiful house of his at Cannes, where almost the last time I saw him was the Christmas Day I spent with him 18 months ago. He was a delightful host, a sympathetic companion and listener, and one who, as everybody knows, leaves a fragrant memory behind him.

I therefore beg to move that the regrets of the Institute for his loss be entered on the minutes, and that a message of sympathy and condolence be conveyed to his relatives.

This was carried by members and the company up-standing.

### THE R.I.B.A. LONDON ARCHITECTURE MEDAL 1929.

The Jury entrusted by the Royal Institute of British Architects with the award of the London Architecture Medal have announced their award for the year 1929.

After careful examination of drawings and photographs of all the buildings which were nominated for the honour, the Jury has given its Award in favour of the Underground Electric Railway Company's premises, Broadway, Westminster, designed by Messrs. Adams, Holden and Pearson, F.F.R.I.B.A., of 9, Knightsbridge, Hyde Park Corner, S.W.1.

### ELECTION OF STUDENTS, R.I.B.A.

The following were elected as Students at the meeting of the Council held on 16 June, 1930:—

ASHWELL: BERNARD JOHN, Huxley, St. Albans.  
CROWTHER: JAMES LEONARD, 62 Wensley Drive, Chapel Allerton, Leeds.

\* On page 518, JOURNAL, No. 14.



EGAN: MICHEL HENRI, 45, Primrose Mansions, Battersea Park, London, S.W.11.  
 GALLETT: JAMES, c/o Notman, 43, Jordan Lane, Morning-side, Edinburgh.  
 HARLAND: PETER JOHN BLUNDELL, 129 Crawford Street, London, W.1.  
 IRONSIDE: WILLIAM DALTON, 30 Gladstone Place, Aberdeen.  
 LOMMER: HEW, 54 Melville Street, Edinburgh.  
 MATON: WILLIAM HUGH, Sherich, Haoldon, Whitechurch, Glam.  
 PATTERSON: DAVID STUART, 91 Loanfoot Avenue, Glasgow, W.3.  
 PHILIP: ELIZABETH CECILY CLARE, 62 Alexandra Road, Upper Norwood, London, S.E.19.  
 ROSSALL: REGINALD ERNEST, 45 Overhill Road, Dulwich, London, S.E.22.  
 SANDY: BASH GUINAN, 55 Albany Road, Chorlton-cum-Hardy, Manchester.  
 SLADE: CHARLES JOHN, 70 Algernon Road, Norwood; Johannesburg, South Africa.  
 SCOTT: ARMAND WILMHERST, 93 City Road, Edgbaston, Birmingham.  
 WINSTON: DENIS, 13 Menlove Avenue, Liverpool.

### R.I.B.A. PROBATIONERS.

During the month of May 1930 the following were registered as Probationers of the Royal Institute:—

BOWMAN: SIDNEY DIET, 14 Wheelgate, Malton, Yorks.  
 BRIDGLAND: REGINALD JAMES, 39 Kensington Gardens Square, W.2.  
 COTTRELL: JOHN NANFAN, 99 Erys Road, Eastbourne.  
 COWAN: RONALD, Kartidale, Harbsey Road, Flurthorn, Stockton-on-Tees.  
 DEY: WILLIAM GORDON, "Rothemay," St. John's Road, Conastorphine, Midlothian.  
 DILLON: CARMEN JOSEPH, 149 Wahn Lane, London, N.W.2.  
 DUNDALE: MICHAEL ARTHUR STRATFORD, 1 Roland Gardens, London, S.W.7.  
 DUNHAM: PETER BROWNING, Streasley House, Streasley, Luton, Beds.  
 EDWARDS: PERCY WALTER, 15 Ripon Street, Mayfields, Leicester.  
 GIBBS: STEPHEN JOSEPH, 14 Cromwell Road, Stamford, Winchester, Hants.  
 HARDING: VALENTINE, 13 Gower Street, W.C.1.  
 HARLAND: PETER JOHN BLUNDELL, 129 Crawford Street, London, W.1.  
 HARTLEY: RICHARD, "Glenoyd," Endsleigh Road, Old Colwyn.  
 HEYMANN: HENRY BERNARD, Architectural Association, 34-36 Bedford Square, W.C.1.  
 HOPE: ERIC ALFRED SCHOLEFIELD, Pulloxhill Vicarage, Bedford, Beds.  
 LAWRENCE: GEORGE HASLEHURST, 18 Mansion House Row, Edinburgh.  
 MCKINLAY: GEORGE, 87 Crown Road, Twickenham, Middlesex.  
 PARSONS: ROLAND WILLIAM BRITTON, 24 St. Peter Street, Tiverton, Devon.  
 PHILIP: ELIZABETH CECILY CLARE, 62 Alexandra Road, Upper Norwood, S.E.19.  
 PITT: HAL LUNLEY, 21 Sydney Street, Brightlinges, Essex.  
 REIDFERN: BERNARD EDGAR, 57 Prenton Park Road, Prenton, Birkenhead, Cheshire.  
 RONALDSON: PATRICK HENRY DUDGEON, Glythys, Cairnmuir Road, Conastorphine, Edinburgh.  
 SLADE: CHARLES JOHN, 70 Algernon Road, Norwood, Johannesburg, S. Africa.  
 STEWART: REGINALD ARTHUR, 76 Osborne Road, Manly, N.S.W., Australia.

TOW: ERNEST FREDRICK, Ardenholm, Helensburgh, Dumbartonshire.  
 WILSON: DAVID MARSHALL MILLWOOD, 3 Linnell Drive, Golders Green, N.W.11.  
 WOODWARD: LIONEL OREORI, Cranbrook, Embecourt Road, Thames Ditton, Surrey.

### NOTES FROM THE MINUTES OF THE COUNCIL 16 June 1930.

THE LATE MR. W. J. LOCKE (*Hon. A.*).

The Council passed a resolution expressing their sincere sympathy with Mrs. Locke in the great loss she had sustained through the death of Mr. W. J. Locke.

THE ANCIENT MONUMENTS BOARD FOR ENGLAND.

The President was nominated to represent the R.I.B.A. on the Ancient Monuments Board for England.

THE COURT OF GOVERNORS OF THE UNIVERSITY OF SHEFFIELD.

Mr. C. M. E. Hadfield [*F.*] was appointed to represent the R.I.B.A. on the Court of Governors of the University of Sheffield.

JOINT COMMITTEE ON SCHOOL LIGHTING.

Mr. John Swarbrick [*F.*] was appointed to represent the R.I.B.A. on the Joint Committee on School Lighting which has been set up by the Illuminating Engineering Society.

REPORT OF THE CONFERENCE ON PLUMBING.

The report of the Conference set up to consider and report on the question of damage to plumbing work caused by frost was approved. The report will be published in the JOURNAL and also in pamphlet form.

RETIRED MEMBERS OF COUNCIL.

A hearty vote of thanks was passed in favour of the retiring Members of Council.

EXHIBITION OF ARCHITECTS' DRAWINGS OF 1800-1850.

A hearty vote of thanks was passed in favour of all the bodies and individuals who lent drawings for this exhibition. The thanks of the Council were also conveyed to the members of the Exhibition Committee.

THE FELLOWSHIP.

The Council, by a unanimous vote, elected Mr. E. H. Henderson, of Canberra, Australia, to the Fellowship.

MEMBERSHIP.

The following ex-members were reinstated:—

As Associate: Lieut.-Colonel Raymond Symot.

As Licentiates: William Pearson Holgreaves, Walter Potts.

APPLICATIONS FOR ELECTION AS LICENTIATES UNDER SECTION III (f) OF THE SUPPLEMENTAL CHARTER OF 1925.  
 Two applications were approved.

R.I.B.A. STATUTORY EXAMINATION FOR DISTRICT SURVEYORS AND THE R.I.B.A. EXAMINATION FOR BUILDING SURVEYORS.

EXAMINATION FEES.

The Council have decided to abolish the fee of £3 3s. required of a successful candidate in connection with the issue of a Certificate of Competency. The Examination fee of £3 3s. will remain as heretofore and will include the issue of the Certificate of Competency, if such be granted.



## R.I.B.A. INTERMEDIATE EXAMINATION.

NOVEMBER 1930.

Newcastle-upon-Tyne will be one of the centres for the R.I.B.A. Intermediate Examination to be held in November 1930 provided sufficient candidates wish to take the Examination at that centre.

THE R.I.B.A. INTERMEDIATE EXAMINATION.  
MAY AND JUNE 1930.

The R.I.B.A. Intermediate Examination qualifying for election as Student R.I.B.A. was held in London from 30 May to 5 June, and in Manchester from 30 May to 4 June 1930.

Of the 187 candidates examined 80 passed and 107 were relegated. The successful candidates are as follows:—

Ewart Trist Ashley-Smith, Albert John Guy Belsey, Percy Billington, William Norris Bradford, Alan Brown, Colin Brown, Lawrence Arthur Brown, Vincent Brown, Frederick Harold Carter, George Herbert Barton Chantrey, Edwin Breckon Chapman, Alfred George Church, Thomas Hilton Clayton, Walter Edward George Coker, James Henry Cook, Herbert William Cortis, Christopher Henry Ross Davis, John Edward Deleuse, George Dyson Denbigh, Charles Elgoy, James McDonald Fairweather, John Edward Farnsworth, Douglas Edgar Fleming, Cyril Frederick Fox, Albert Edward Goffey, Arthur Francis Evelyn Gott, Henry Holmwood Gratrix, John Hardwick, John Ayrton Hey, George Vernon Huddy, William Joseph Hunt, Leslie Cecil Inel, Lawrence Israel, Reginald Cecil Kemp, Lawrence Kilner, Stanley Frederick Kirk, Reginald Bernard Lang, Charles Law, Eric Arthur Lawton, Edward Joseph George Light, Kenneth John Lindy, Richard Little, George Charles Lowe, William Marsden, Sidney James Maskell, Harry Moncrieff, Charles Munro, Norman Charles Nicklin, Herbert Avery Normington, Reginald John Page, Arthur Pearce, John Trevor Williams Peat, Frederick William Peers, Thomas Pilkington, Philip John Price, Harold Dent Priestman, Rex Thorpe Read, Noel Lees Reece, Frederick Barnard Reynier, Roy Lewis Reynish, Henry Joseph Risbridger, George Robb, Kenneth Rose, Cyril George Rummicks, Denis Senior, Alexander Sherwin, Alfred Ernest Hatten Simms, Joseph Edwin Smith, Cedric Arthur Spivey, Sven Michael Benvenuto Sternfeldt, James Peter Stott, Robert George Tee, Jack Lester Thorpe, Frederick John William Turner, John Drew Vardy, Edward Hugh Vaux, Philip George Watkinson, Norman Wheatley, Austin Wilkinson, Iorwerth Maldwyn Williams.

## Notices

## THE R.I.B.A. KALENDAR 1930-31.

The attention of members is drawn to the leaflet enclosed with this issue of the JOURNAL. Changes of address, etc., for inclusion in the forthcoming issue of the Kalendar should be notified to the Secretary R.I.B.A. before Saturday, 6 September.

## MEMBERS AND PROFESSIONAL AFFIXES.

The Council's attention has been called more than once to the practice, among some members, of adding a string of letters of doubtful value to the affix indicating membership of the Royal Institute on their letter paper.

This is a matter in which the Council obviously cannot dictate to members and must trust to their good sense. It should be obvious, however, that the affix of a chartered body of high standing is weakened in effect by the addition to it of a string of other mysterious designations, some of which probably indicate no more than the payment of an annual subscription.

## OVERSEAS APPOINTMENTS.

Members contemplating applying for appointments overseas are recommended to communicate with the Secretary R.I.B.A., who will supply them with any available information respecting conditions of employment, cost of living, climatic conditions, etc.

WILLIAM H. HAMLYN,

Hon. Sec. R.I.B.A., Salaried Members' Committee.

## THE NATIONAL ASSOCIATION OF WATER USERS.

Members are reminded that the National Association of Water Users, on which the R.I.B.A. is represented, exists for the purpose of protecting the interests of consumers.

Members who experience difficulties with water companies, etc., in connection with fittings are recommended to seek the advice of the Association. The address of the Association is 46 Cannon Street, London, E.C.4.

## ELECTION OF MEMBERS, 1 DECEMBER 1930.

Associates who are eligible and desirous of transferring to the Fellowship are reminded that if they wish to take advantage of the election to take place on 1 December 1930, they should send the necessary nomination forms to the Secretary R.I.B.A. not later than Saturday 27 September 1930.

## LICENTIATES AND THE FELLOWSHIP.

The attention of Licentiates is called to the provisions of Section IV, Clause 4 (b) and (c) of the Supplemental Charter of 1925. Licentiates who are eligible and desirous of transferring to the Fellowship can obtain full particulars on application to the Secretary R.I.B.A., stating the clause under which they propose to apply for nomination.

## R.I.B.A. STATUTORY EXAMINATION FOR THE OFFICE OF DISTRICT SURVEYOR AND THE EXAMINATION FOR THE OFFICE OF BUILDING SURVEYOR.

The R.I.B.A. Statutory Examination for the office of District Surveyor under the London Building Acts, and the examination for the office of Building Surveyor under Local Authorities, will be held at the R.I.B.A., London, on 15, 16 and 17 October 1930.

The closing date for receiving applications for admission to the examinations, accompanied by the fee of £3 3s., is 24 September.

Full particulars of the examinations and application forms can be obtained from the Secretary R.I.B.A.



### COMPOSITION OF MEMBERS' SUBSCRIPTIONS FOR LIFE MEMBERSHIP.

The attention of Members is drawn to the scheme for compounding subscriptions for Life Membership which was approved by the General Body at the Business Meeting held on Monday, 5 December 1927.

Fellows, Associates and Licentiates of the Royal Institute may become Life Members by compounding their respective annual subscriptions on the following basis—

For a Fellow by a payment of £73 10s. (70 guineas).

For an Associate or Licentiate by a payment of £44 2s. (42 guineas), with a further payment of £29 8s. on being admitted as a Fellow.

Provided always that in the case of a Fellow or Associate the above compositions are to be reduced by £1 1s. per annum for every completed year of membership of the Royal Institute after the first five years, and in the case of a Licentiate by £1 1s. per annum for every completed year of membership of the Royal Institute.

### THE ROYAL AUSTRALIAN INSTITUTE OF ARCHITECTS.

Information has just been received that His Majesty the King has granted permission to the Australian Institute of Architects to use the prefix "Royal."

## Competitions

### BANGOR (CO. DOWN) LAY-OUT OF SEA-FRONT.

The Bangor (Co. Down) Borough Council invite architects and town planners to submit, in open competition, designs for the lay-out of the sea-front in the Borough.

Assessor: Professor Patrick Abercrombie, M.A. [F.].

Premiums: £150 and £50.

Last day for receiving designs: 1 September 1930.

Conditions of the competition may be obtained on application to Mr. J. Milliken, Town Clerk, Borough Council Offices, Bangor, Co. Down. Deposit £1 1s.

### BARNSTAPLE: OPEN AIR SWIMMING BATH.

The Barnstaple Town Council have now decided not to hold the competition in connection with the above.

### CARLISLE: ENGLISH STREET IMPROVEMENT.

The Corporation of the City of Carlisle invite architects to submit, in open competition, designs for the façade to English Street and the Victoria Viaduct, suitable for Shops and Business Premises.

Assessor: Mr. Francis Jones [F.].

Premiums: £300, £200 and £100.

Conditions of the competition may be obtained on application to Mr. Percy Dalton, A.M.Inst.C.E. [A.], City Engineer, 18 Fisher Street, Carlisle. Deposit £1 1s.

### CHULMLEIGH, DEVON: PROPOSED MINISTER'S HOUSE.

The Competitions Committee desire to call the attention of members to the fact that the conditions of the above competition are not in accordance with the regulations of

the R.I.B.A. The Competitions Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime members should not take part in the competition.

### LIVERPOOL: DEVELOPMENT OF SITE.

The General Building Syndicate, Ltd., invite architects to submit, in open competition, schemes for the development of a site at Liverpool fronting St. John's Lane, Queen Square and Roe Street.

Premiums: £250, £100 and £50.

Conditions of the competition may be obtained on application to The Secretary, General Building Syndicate, Ltd., 36, St. Martin's Lane, London, W.C.2. Deposit £2 2s. [Conditions have not yet been received.]

### LUTON: TOWN HALL.

The Town Council of Luton invite architects to submit, in open competition, designs for a new Town Hall and Municipal Buildings, at a cost of £250,000.

Assessor: Sir A. Brumwell Thomas [F.].

Premiums: £500, £300, £200 and £100.

Last day for receiving designs: 31 July 1930.

Conditions of the competition may be obtained on application to Mr. W. Smith, Town Clerk, 2 Upper George Street, Luton. Deposit £2 2s.

### MENAI BRIDGE: PROPOSED PAVILION.

The Competitions Committee desire to call the attention of members to the fact that the conditions of the above competition are not in accordance with the regulations of the R.I.B.A. The Competitions Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime members should not take part in the competition.

### RAMSEY, ISLE OF MAN: GRAMMAR SCHOOL.

The Education Authority of the Isle of Man invite architects to submit, in open competition, designs for a new Grammar School to be erected at Ramsey.

Assessor: Mr. T. Taliesin Rees [F.].

Last day for receiving designs: 30 September 1930.

Conditions of the competition may be obtained on application (before 1 July 1930) to Mr. T. R. Lewin, Clerk to the Authority, Education Office, Strand Street, Douglas, I.O.M. Deposit £1 1s.

### SOUTHPORT: MARKET HALL.

The Southport County Borough invite architects practising in the Borough of Southport to submit, in competition, designs for a new Market Hall to be erected at a cost of £13,500.

Assessor: Dr. Percy S. Worthington, F.S.A. [F.].

Premiums: £100, £50, £35 and £20.

Last day for receiving designs: 31 July 1930.

Conditions of the competition may be obtained on application to the Town Clerk, Municipal Buildings, Southport.

### WEST HUMBERSTONE: LIBRARY.

The Leicester Corporation propose to invite local architects to submit, in competition, designs for a Library, to be erected at West Humberstone.

Assessor: Mr. Hugh Gold [F.].

Premiums: £75, £50 and £25.

[Conditions are not yet available.]



## Members' Column

### MR. H. ALEXR. PELLY.

MR. H. ALEXR. PELLY [F.], having carried on his practice in the City for many years, lately at No. 2 Bucklersbury, E.C., is continuing to carry on his practice at No. 25 Chisholm Road, Richmond Hill, Surrey. His telephone number will be Richmond 2953.

### PARTNERSHIP.

MEMBER, age 45, with established practice in S. Wales, Glos. and Wilts, would entertain meeting another having established practice in West of England whereby a partnership might prove of mutual benefit. Fuller investigation given and expected. Apply Box 1663, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

### PARTNERSHIPS WANTED.

ASSOCIATE R.I.B.A., age 34, having extensive London general experience, partly in private practice, desires position of responsibility as Senior assistant with view to partnership. London or Home Counties. Capital available.—Apply Box 2697, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

ASSOCIATE, age 30, desires partnership in South or West of England. Five years' experience in leading London offices.—Apply Box 1463, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

A.R.I.B.A. having small practice wishes to meet architect with established practice with view to working partnership. Apply Box 2134, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

### PARTNER WANTED.

MEMBER is desirous of disposing of share in West End branch of large provincial practice. Good opportunity for young qualified man to work up a sound connection. Fuller details of Box No. 1763, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

### TEMPORARY ASSISTANCE.

MEMBER (age 41), with small London practice in W.C. District is able at any time to help architects requiring assistance.—Apply Box 3584, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

### ASSISTANCE OFFERED.

FELLOW having recently retired from large practice seeks association with busy London or provincial architect, with a view to assisting, even in a temporary capacity. Preferably one with practice including works abroad.—Apply Box 10730, c/o The Secretary R.I.B.A., 9 Conduit Street, W.1.

### OFFICE ACCOMMODATION REQUIRED.

MEMBER requires one vacant room or share of offices in Grays Inn, Temple, or Lincoln's Inn.—Apply Box 3947, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

## Minutes XVIII

Session 1929-1930.

At a Special General Meeting held on Monday, 21 June, 1930, at 8.30 p.m.

Sir Banister Fletcher, F.S.A., President, in the Chair.

The attendance book was signed by 43 Fellows (including 11 members of Council), 40 Associates (including 3 Members of Council), 7 Licentiates, 4 Hon. Associates and a very large number of visitors.

The following member attending for the first time since his election was formally admitted by the President:—

Mr. W. Godfrey Allen [F.].

The President announced that the meeting was to do honour to the architects who had been concerned in the great task of the Restoration of St. Paul's Cathedral during the past 17 years and stated that a lecture prepared by Captain Stanley Peach [F.] and Mr. Godfrey Allen [F.] giving a full account of the matter would be delivered by Mr. Allen. The President also announced that an Exhibition of Models, Masonry specimens, drawings and photographs, which had been kindly arranged

by the Cathedral authorities, was on view in the adjoining gallery.

Mr. Godfrey Allen then read the Paper on "The Restoration of St. Paul's Cathedral." On the motion of Canon S. A. Alexander, M.A., seconded by Sir Basil Mort, Bart., C.B., a vote of thanks was passed to Captain Peach and Mr. Godfrey Allen by acclamation and was briefly responded to.

The proceedings closed at 9.50 p.m.

## ARCHITECTS' BENEVOLENT SOCIETY (Insurance Department).

### HOUSE PURCHASE SCHEME (for property in Great Britain only).

The Society is able, through the services of a leading Assurance Office, to assist an Architect (or his client) in securing the capital for the purchase of a house for his own occupation, on the following terms:—

#### AMOUNT OF LOAN.

Property value exceeding £666, but not exceeding £2,500, 75 per cent. of the value.

Property value exceeding £2,500, but not exceeding £4,500, 66½ per cent. of the value.

The value of the property is that certified by the Surveyor employed by the Office.

#### RATE OF INTEREST.

In respect of loans not exceeding £2,000 5½ per cent. gross.

" " in excess of " 3½ " "

#### REPAYMENT.

By means of an Endowment Assurance which discharges the loan at the end of 15 or 20 years, or at the earlier death of the borrower.

#### SPECIAL CONCESSION TO ARCHITECTS.

In the case of houses in course of erection, it has been arranged that, provided the Plan and Specification have been approved by the Surveyor acting for the Office, and the amount of the loan agreed upon, and subject to the house being completed in accordance therewith, ONE HALF of the loan will be advanced on a certificate from the Office's Surveyor that the walls of the house are erected and the roof on and covered in.

NOTE.—In 1928, over £20,000 was loaned to architects under this scheme, and as a result over £100 was handed to the Benevolent Fund.

If a quotation is required, kindly send details of your age next birthday, approximate value of house and its exact situation, to the Secretary Architects' Benevolent Society, 9 Conduit Street, London, W.

Members sending remittances by postal order for subscriptions or Institute publications are warned of the necessity of complying with Post Office Regulations with regard to this method of payment. Postal orders should be made payable to the Secretary R.I.B.A. and crossed.

It is desired to point out that the opinions of writers of articles and letters which appear in the R.I.B.A. JOURNAL must be taken as the individual opinions of their authors and not as representative expression of the Institute.

### R.I.B.A. JOURNAL.

DATES OF PUBLICATION.—1930.—9 August; 20 September; 18 October.



# Journal of the Royal Institute of British Architects

VOL. XXXVII. No. 18

THIRD SERIES

9 AUGUST 1930

## Contents for 9 August 1930

	Page
ST. PAUL'S CATHEDRAL: VIEW ACROSS DOME FROM THE SOUTH AISLE OF NAVE. From a Pencil Drawing by the late C. E. Mallowe [F.]	<i>Frontispiece</i>
THE PRESERVATION OF ST. PAUL'S CATHEDRAL:	
PAPER BY CAPTAIN C. STANLEY PEACH [F.] AND W. GODFREY ALLEN [F.]	656
SPEECHES BY THE PRESIDENT, SIR BANISTER FLETCHER, F.S.A., THE REV. CANON S. A. ALEXANDER, C.V.O. AND SIR BASIL MOTT, BART., C.B.	676
REVIEWS:	
VITRUVIUS ON ARCHITECTURE. By Professor FRANK GRANGER, D.Litt., M.A. (London) [A.]	677
LE FER FORGÉ EN FRANCE. By Edward WARREN, F.S.A. [F.]	677
INTERNATIONAL AIRPORTS. By John DOWDY [A.]	678
RECENT FOREIGN PERIODICALS. By Graham B. Tubbs [A.]	679
NOTES BY MEMBERS OF SCIENCE COMMITTEE:	
WATER SOFTENING. By Alan E. Munby [F.]	680
CORRESPONDENCE:	
ENGLISH CHURCH ART. By P. A. Robson [F.]	680
XI <sup>TH</sup> INTERNATIONAL CONGRESS OF ARCHITECTS. By Lt.-Col. H. P. Cart de Lafontaine, O.B.E. [A.]	680
REPORT OF CONFERENCE ON DAMAGE TO PLUMBING WORK CAUSED BY FROST	681
REVISION OF BUILDING REGULATIONS:	
DEPUTATION TO MINISTRY OF HEALTH	683
LETTER FROM PRESIDENT, SIR BANISTER FLETCHER, F.S.A.	684
CHANDOS CROSS BRIDGE SCHEME	684
COUNCIL FOR THE PRESERVATION OF RURAL ENGLAND	684
ALLIED SOCIETIES:	
ESSEX SOCIETY OF ARCHITECTS	685
NOTES FROM MINUTES OF COUNCIL	686
ELECTION OF STUDENTS, R.I.B.A.	688
R.I.B.A. PROBATIONERS	689
BYE-LAWS OF THE R.I.B.A.	690
NEW HEADQUARTERS OF THE R.I.B.A.	690
NOTICES	690
COMPETITIONS	691
MEMBERS' COLUMN	692
A.B.S. HOUSE PURCHASE SCHEME	692





ST. PAUL'S CATHEDRAL: VIEW ACROSS THE DOME FROM THE SOUTH AISLE OF NAVE  
From a Pencil Drawing by the late C. E. Mallows [P.]

R.I.B.A. Collection



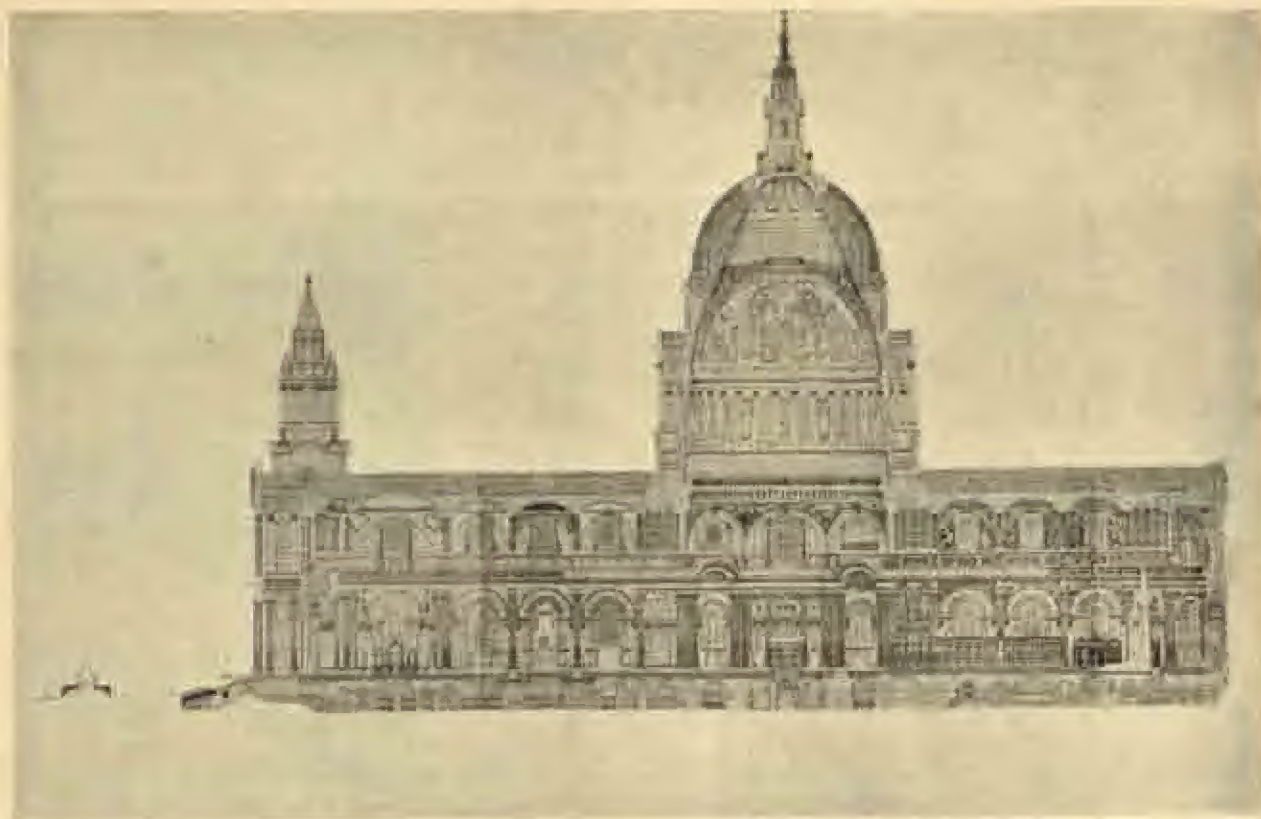


FIG. 9.—ARCHITECTURAL SURVEY OF ST. PAUL'S CATHEDRAL: LONGITUDINAL SECTION, SHOWING ARCHITECTURAL, DECORATIVE AND CONSTRUCTIONAL DETAILS  
Drawn by Cecil Brown.

## The Preservation of St. Paul's Cathedral

SPECIAL GENERAL MEETING ON MONDAY, 23 JUNE 1930,  
SIR BANISTER FLETCHER, F.S.A., PRESIDENT, IN THE CHAIR.

**THE PRESIDENT:** The object of our meeting to-night is to celebrate the triumphant completion of the great undertaking to secure the safety of the fabric of St. Paul's Cathedral, which has occupied over seventeen years, and to do honour to the architects and engineers who have been responsible for the great task. The men whom we are honouring include Sir Aston Webb, R.A., one of our most revered Past-Presidents, who, to his own regret and our loss, is unable to be present here this evening, Mr. Mervyn Macartney,\* the veteran Surveyor to the Cathedral, who is also unable to be present, which we regret very much; Mr. W. D. Caroe, who did valuable work in the early days of the problem, Captain Stanley Peach, who has been the representative of the R.I.B.A. on the Committee that

has been dealing with the matter since the year 1925, and, lastly, Mr. Godfrey Allen, the Assistant Surveyor, who has been in the closest contact with the work for many years past, and whose work has been recognised by the Council by his election this evening as a Fellow of the Royal Institute.

We have also the pleasure of having with us to-night the following representatives of the engineers who have assisted in the task: Sir Basil Mott, C.B., Lt.-Col. C. E. P. Sankey, D.S.O., Lt.-Col. Sir Charles L. Morgan, C.B.E., Sir George Humphreys, K.B.E., and Mr. E. F. C. Trench, C.B.E.

An address prepared by Captain Stanley Peach and Mr. Godfrey Allen, giving a full account of the matter, will be delivered by Mr. Allen, and afterwards those present at the meeting will have an opportunity of seeing, in the adjoining gallery, an exhibition of models,

\* Now Sir Mervyn Macartney.—Ed.



masonry specimens, drawings, and photographs, which has been kindly arranged by the Cathedral authorities.

On Wednesday next, by the reopening of the Metropolitan Cathedral, at which their Majesties the King and Queen will be present, there will be celebrated a national event—indeed an Empire event—for every section of our nation and every part of our Empire has been aroused to interest to the point of contributing financially to make the work possible. The Trustees of the Cathedral, under the lead of the devoted Treasurer, Canon Alexander, the architects, successively and together, the engineers, and, above all, the nation and the Empire, all have worked in their several ways, and many have contributed, through the opportunity so patriotically supplied by *The Times*, to provide the means for the safeguarding and preservation of the Cathedral. From all these various sources the world over, there has been supplied in sums, large and small, no less than £450,000, and this has been accomplished

in times of increasingly heavy national taxation, thus affording material evidence of the place our great Cathedral holds in the heart of the British Empire. In this work of securing the stability of St. Paul's and its mighty dome, we can also claim that honour has been fully paid to the genius of Sir Christopher Wren. When he drove up from his house in Hampton Court and sat to meditate under the dome which he had raised to the glory of God over the Cathedral for a people's worship, could he ever in his wildest dreams have imagined the gigantic changes in locomotion and traffic which, with its increasing vibrations, would be a threat to the stability of his fabric? We must still have a care that no further developments for traffic convenience shall be allowed to threaten the future stability of his masterpiece.

I now have pleasure in calling upon Mr. Godfrey Allen to read his paper, which has been prepared by Captain Stanley Peach and himself, on the subject on which we are met to-night.

### THE PRESERVATION OF ST. PAUL'S CATHEDRAL.

BY CAPTAIN C. STANLEY PEACH [F.], AND W. GODFREY ALLEN [F.].

[A Paper read before the Royal Institute of British Architects at a Special General Meeting on Monday, 23 June 1930].

**I**N response to the general wish that the R.I.B.A. should commemorate the completion of the restoration of the dome structures of St. Paul's Cathedral, the President and Council arranged, with the help of the Dean and Chapter of St. Paul's, an exhibition of specimens, models, illustrations and other objects of interest connected with the preservation work, and invited us to give a brief account of this work at the special meeting to-night.

So much has been written and said about St. Paul's, elaborating first one detail, then another, as events happened from time to time to arouse public interest in the condition of the building, that it is difficult to-day to see the subject in its true perspective. Many of these articles and opinions have been misleading, because, as a rule, they were unavoidably based on incomplete and often inaccurate information, and the tendency has been to obscure and confuse even the simple facts. We propose, therefore, to try and clear the matter up and, first of all, to put before you broadly the facts connected with the condition and restoration of the building as far as they are known to us.

Most of the defects which have been met with arose from two principal causes:—

1. The settlements due to the foundations.
2. The unsatisfactory materials and methods

employed in construction, both of which led to consolidation of the building.

Had Wren carried his foundations through to the London clay, much trouble would have been saved. There would have been little or no subsidence due to compression of soil, and the stability of the building would not have been a prey to the numerous underground operations which have taken place in its vicinity. Fig. 1 shows the general nature of the settlements which occurred. First, the heavy masses which comprise the main piers, bastions and west towers shown coloured on the upper plan, settled in relation to the lighter walls surrounding them. Later, as the weight of the dome piled up, further settlement took place between the piers and bastions, and this is shown on the lower plan, the piers being shaded much darker than the rest. These settlements were, however, irregular, and comparative levels show them to have been greatest at the south-west quarter of the dome. The isometric plans, Fig. 2, illustrate the approximate relative settlements of the central structure at four levels, namely, first in the crypt at the impost where the maximum sinkage is 2.80 inches at pier B; secondly above the Church floor at the plinth where it is 1.80 inches at pier B; thirdly, above the main cornice at the plinth, where it is 2.04 inches at pier A, and finally, at the attic cornice, where it is 1.77 inches



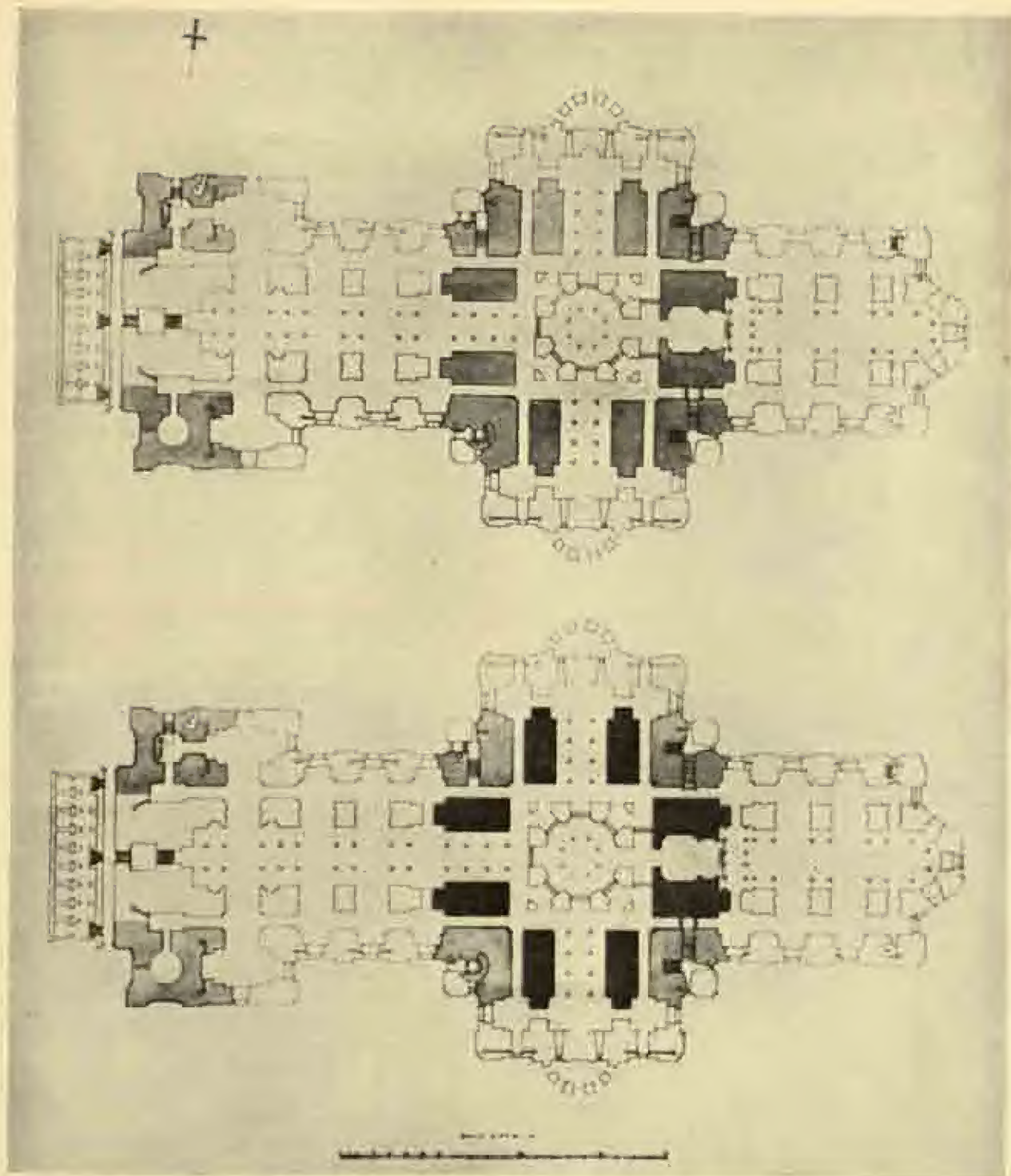


FIG. 1.—SHOWING GENERAL NATURE OF SETTLEMENTS



at pier A. Thus it will be seen that although the settlements are irregular there is no substantial difference in the levels of the eight piers. The

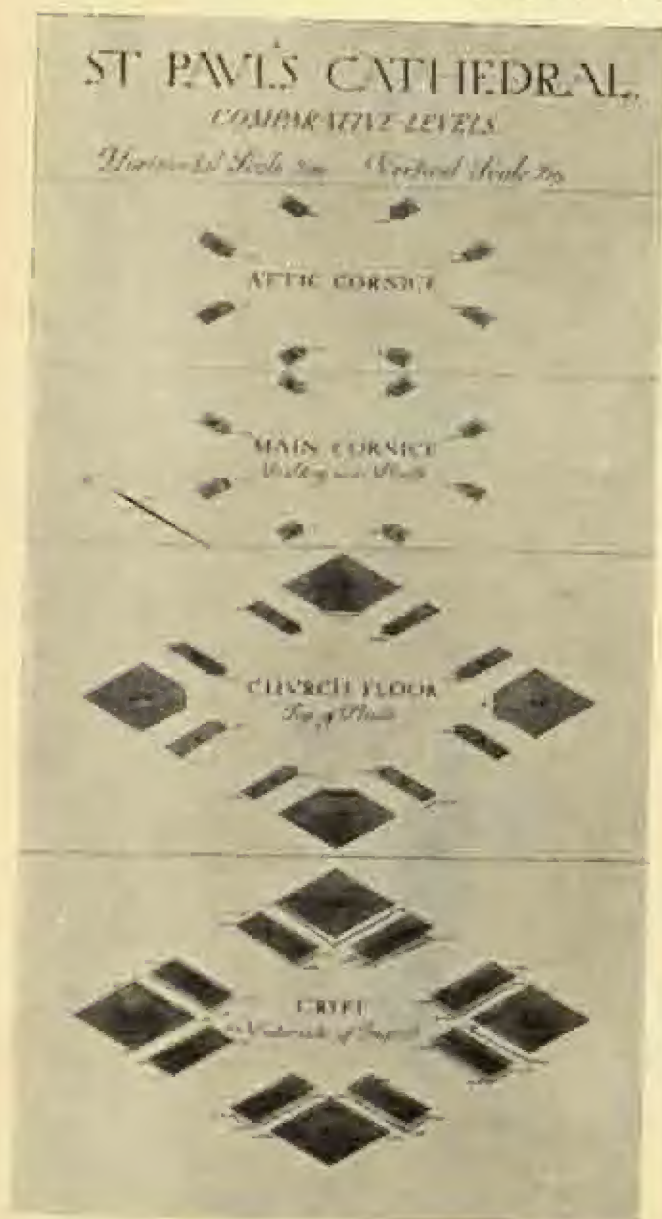


FIG. 2.—ILLUSTRATING APPROXIMATE RELATIVE SETTLEMENTS OF CENTRAL STRUCTURE AT FOUR LEVELS

inclination of the piers from the vertical, which arose from causes which will be referred to later, is also very small and fairly uniform.

These slight irregularities of settlement were

probably due to the uneven temper of the soil and the partial compression of it by the old Cathedral. There is some obscurity respecting the relation of the axes of the two buildings. But whether they be as Mr. Penrose supposed, shown on plan, Fig. 3, or as indicated on a plan attributed to Wren in the Library of "All Souls," Oxford, there are very few places in which the new foundations can have been entirely clear of the old, and apparently there is only one of the eight piers which stands on the virgin ground.

Another factor leading to consolidation is the use of uncoursed rubble as an infilling to the walls, and especially to the piers. In the crypt, where the piers are widened and project on each side beyond the faces of the piers above, the weight is entirely carried by the rubble. There is evidence in the building that compression occurred and that the casing fractured in many cases from this cause. The results of consolidation were to produce dislocation in many of the vaults, arches and walls, but this does not appear to have surprised or alarmed either Sir Christopher Wren or the builders, who no doubt anticipated some such movement.

The damage was, however, very extensive, and the repairs undertaken to remedy it were commenced about 1793, and continued spasmodically under the Cathedral surveyors, James, Flitcroft and Leadbetter, and a fairly comprehensive scheme of restoration was carried out by Robert Mylne, which was completed at the end of the eighteenth century.

It is still an open question how far these early defects, and also some of the later ones, were natural and normal to building work, and therefore to be expected, or how far they were accidental and unexpected. It may, we think, be assumed that all defects caused by the building finding its natural bearing, and from normal consolidation, had been repaired by this time. There is no evidence of serious movements from these causes since, and no record of exceptional repairs having been required again until 1897, when Mr. Somers Clarke became Cathedral surveyor.

Just before this, however, while Mr. Penrose was surveyor, trouble arose from the corrosion of iron cramps extensively used as a metal bond, according to the common practice in the Middle Ages, both in the original construction and in subsequent repairs. In the use of iron, Wren did not practise what he preached, if the Parentalia



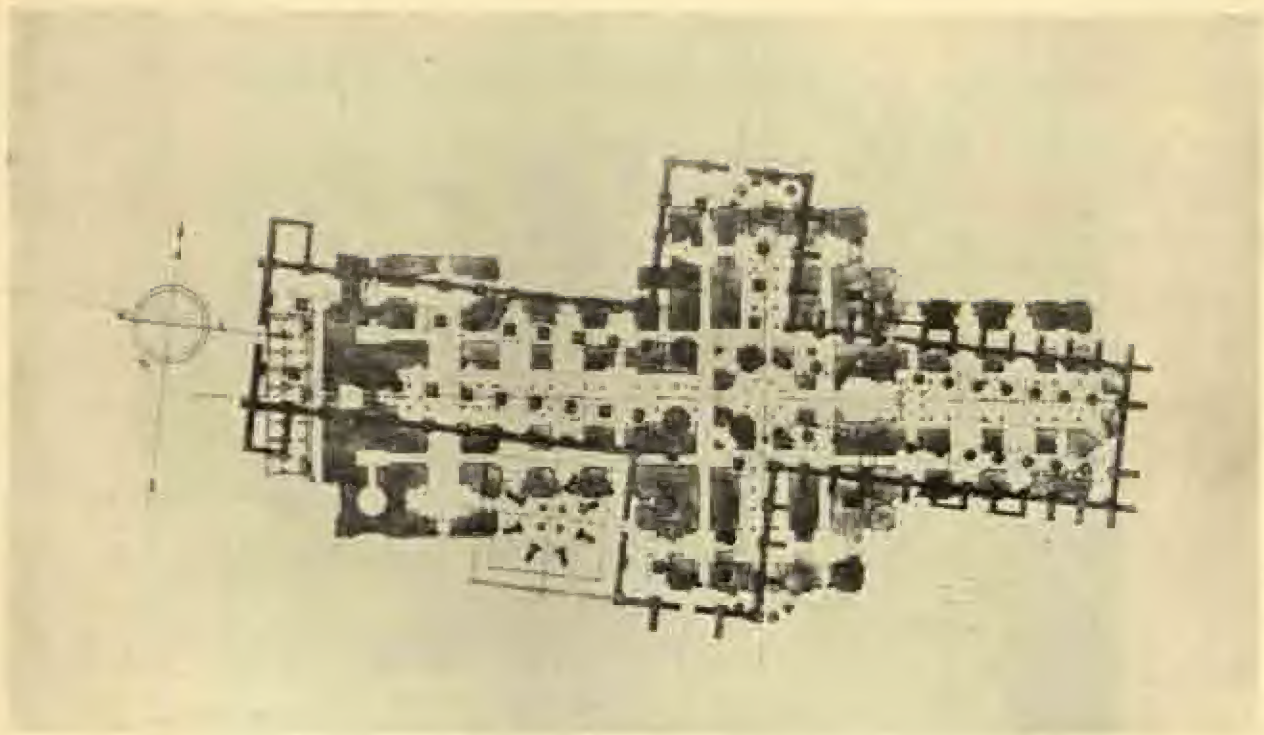


FIG. 3.—SUPERIMPOSED PLANS OF OLD AND NEW CATHEDRALS

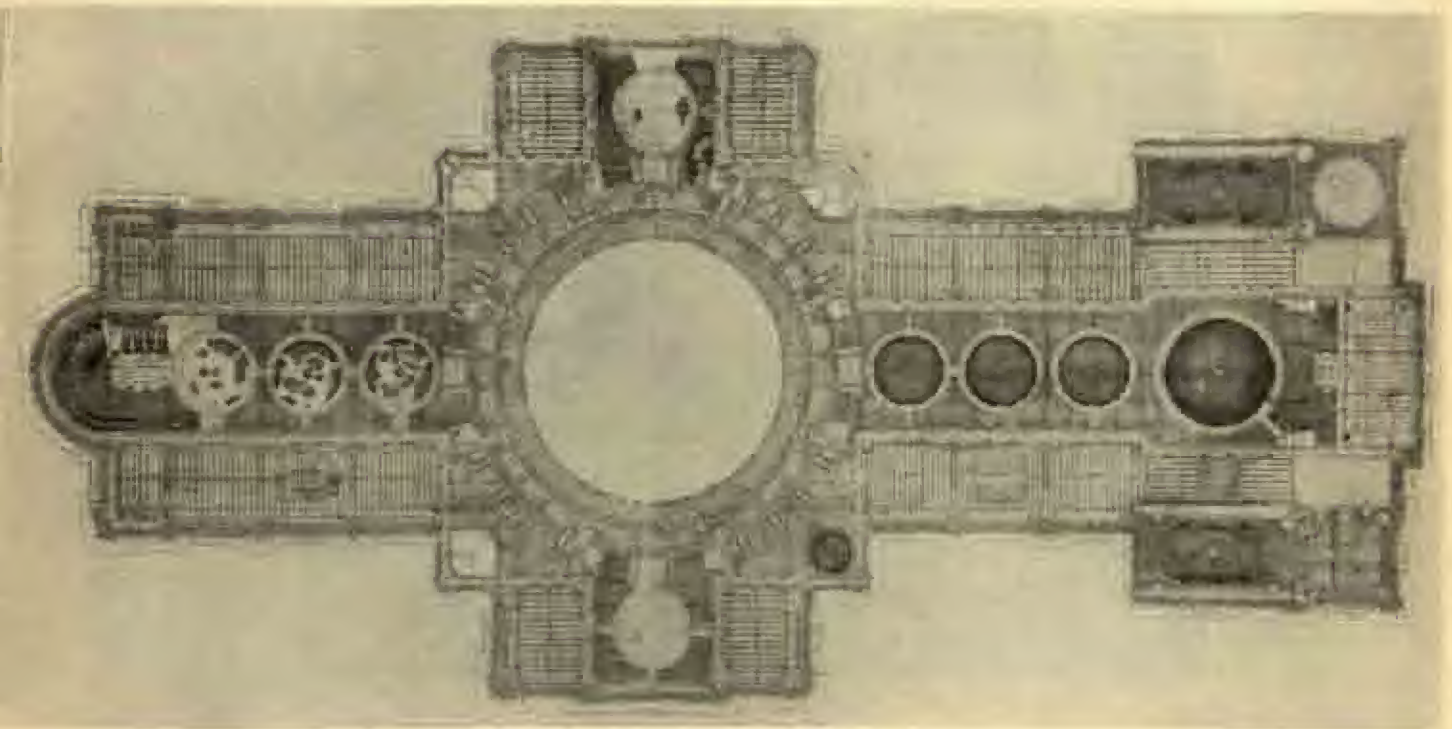


FIG. 4.—ARCHITECTURAL SURVEY: PLAN ABOVE VAULTING LEVEL.  
 Drawn by Cecil Brown



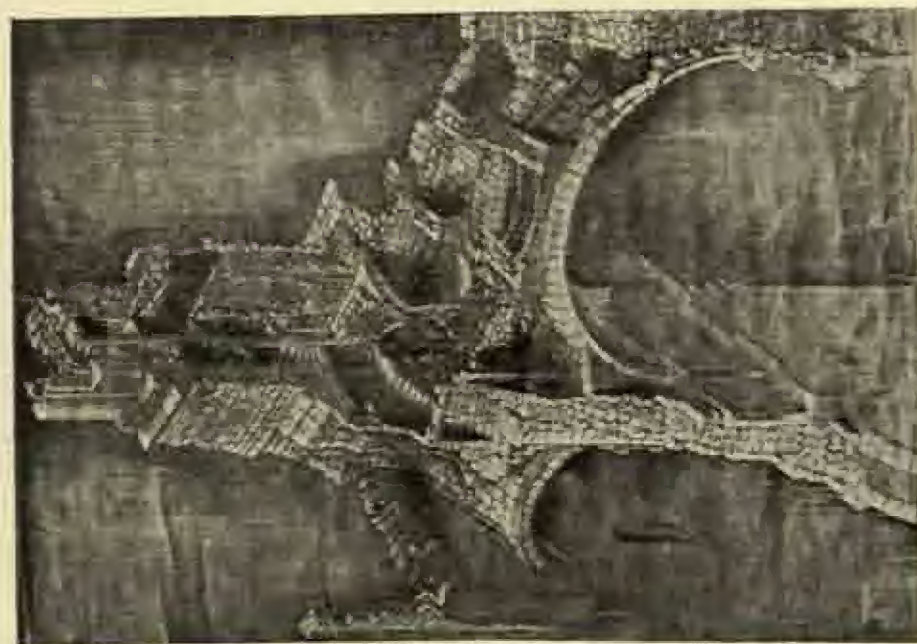


FIG. 5.—ISOMETRIC DRAWING ILLUSTRATING EXTRADOS OF  
MAIN ARCHES

Drawn by R. B. Brooke-Greaves

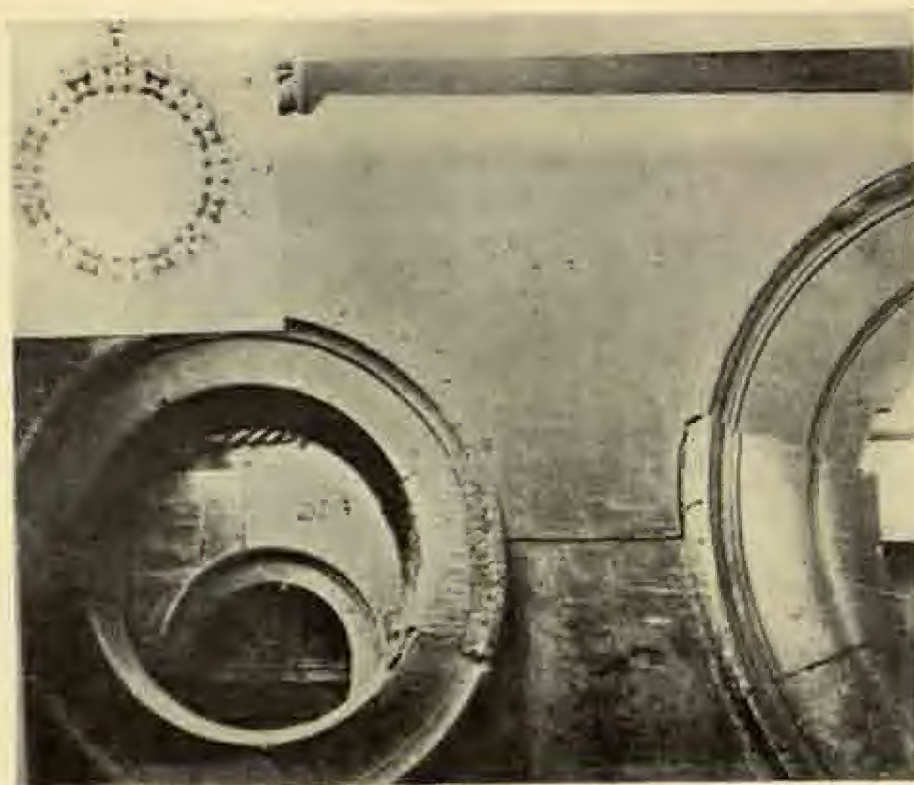


FIG. 6.—ARCHES AND ROOFING IN PENNSYLVANIA BEFORE RESTORATION



represents his views in stating "in cramping of stones no iron should lye within nine inches of the air." Here it is found everywhere, often within a few inches of the surface, and when sufficient time had elapsed for corrosion to take place, the stones spawled and fractured in all parts of the building. Even in Cockerell's time, who preceded Penrose, fractures had taken place in the masonry from this cause. Penrose appreciated its gravity, carried

throughout the whole circumference. The composite structure partly rests on a platform consisting of several courses of large well-bonded masonry spread over the front ends of the piers and the haunches of the adjacent arches (Fig. 4). This platform is supported by the piers independently of the arches, which seem to function mainly as struts between the piers, precautions being taken by inverted arches placed over the extrados of the

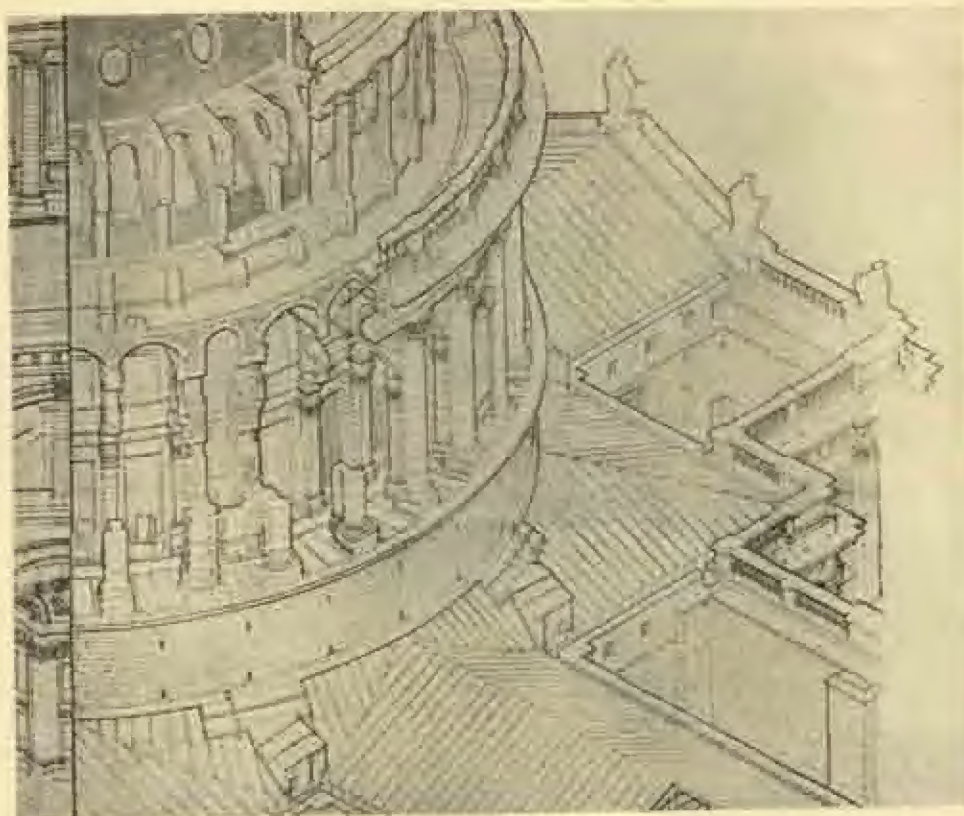


FIG. 7.—ISOMETRIC DRAWING SHOWING CONSTRUCTION OF PERISTYLE  
Drawn by R. B. Brook-Greaves

out extensive repairs and gave warning of the far-reaching nature of the trouble ahead. The work he did in removing a number of these cramps was a valuable contribution to the preservation of the Cathedral.

Mr. Somers Clarke had to face a more serious situation. The superstructure is carried by the inner and outer drums, the great and original box girder which Sir Christopher Wren designed and intended to act as a single unit. He connected these drums at intervals by radial and cross walls

great arches, to prevent them rising while acting in this way. The isometric drawing (Fig. 5) illustrates the construction and the concealed ribs which were put in to relieve the thinner part of the coffered arches. It also shows the inverted arches already mentioned.

The load on the inner drum is several thousand tons more than on the outer drum. This inequality of weight on the green structure, which had been built very quickly, made itself felt and caused considerable disturbance in the radial walls, which



was followed by some independence of action of the drums and consequent incidence of the loads on the piers. This slightly affected the poise of the building above the eight piers and great arches, so that the equilibrium is not quite so perfect as might be expected from the design. The crippling which followed reacted on the colonnade of the peristyle, in spite of an elaborate system of iron

the numerous iron tie rods and cramps mentioned. Fig. 7 also shows the construction. There is a continuous chain of ties round the entablature, the corrosion of which seriously displaced and fractured the stonework, chiefly in the frieze and cornice. Mr. Somers Clarke repaired the stone gallery and made it waterproof, and very largely reconstructed the upper part of the colonnade. His work,

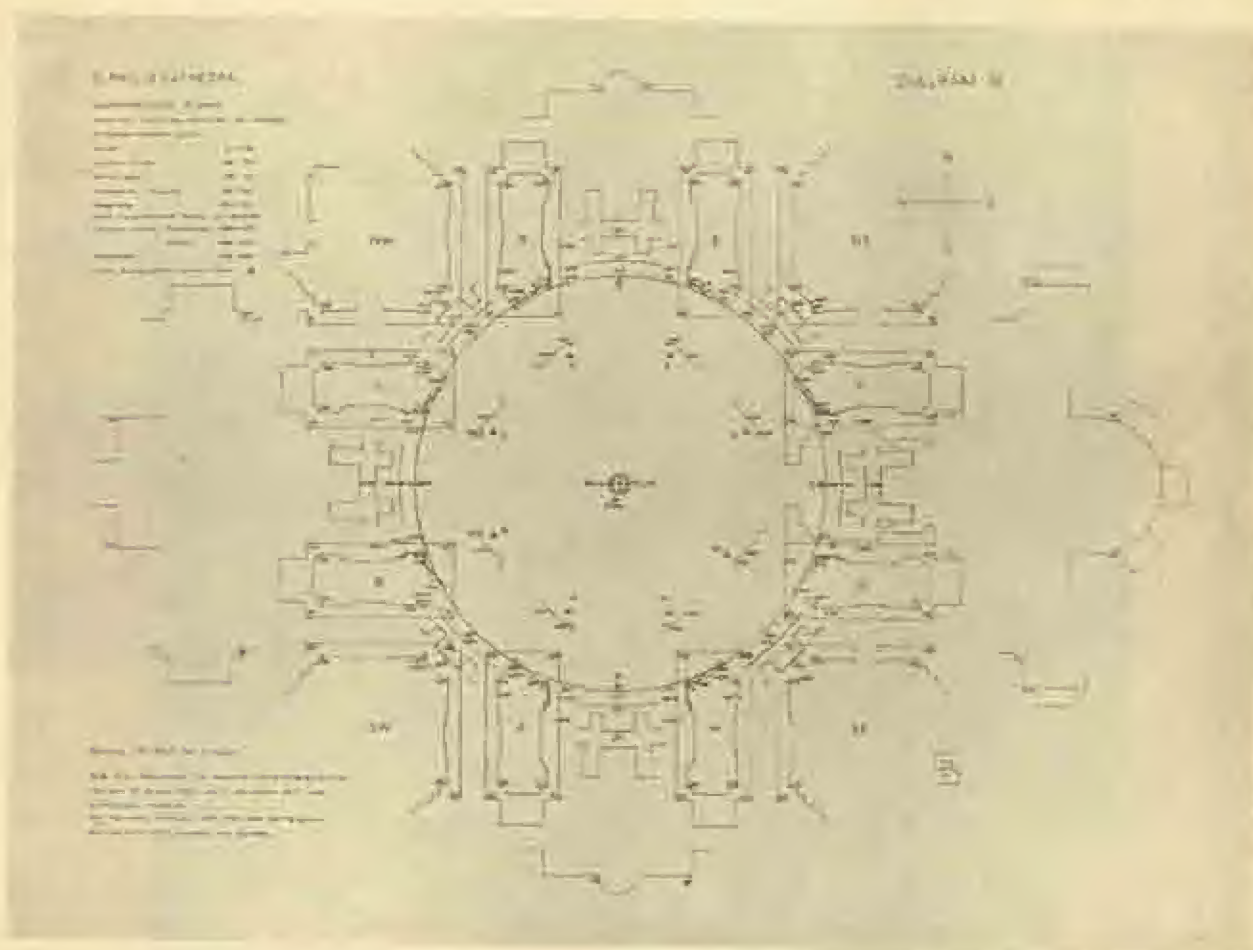


FIG. 8.—PLAN OF DOME AREA SHOWING LEVELLING AND PLUMBING POINTS

ties by which the colonnade was tied back to the inner drum. The arches between the columns and the drum were dislocated and in many cases the voussoirs and the roundels were fractured, and their condition before restoration is shown (Fig. 6). The movements of the colonnade disturbed the worn and defective paving of the stone gallery above it, which allowed water to percolate through the joints to the masonry below, and this set up corrosion in

completed some twenty years ago, is standing perfectly to-day, and has shown no movement in spite of a great deal of work involving structural disturbance which has been carried out since in its vicinity, and below it. This marks the beginning of the later restoration of the dome structures.

Meanwhile, however, other causes of trouble had not been entirely at rest. Several building operations carried out in the vicinity of the



Cathedral and requiring deep excavations and pumping with consequent disturbance of subsoil had caused slight movements in the structure to which changes of temperature no doubt contributed. As an instance of deep excavation, may be mentioned a proposal, brought forward in 1831, to construct a sewer in close proximity to the walls of the south transept. Mr. C. R. Cockerell, who was surveyor at the time, succeeded with the aid of Rennie, Smirke and Brunel in stopping the work, but not, unfortunately, before many thousands of

examination of the building made, when further excavations were proposed in the vicinity of the Cathedral, which caused some apprehension, he was impressed by the extent of the superficial damage, and, feeling dissatisfied with the condition of the dome structures, he advised a consultation with Sir Francis Fox, who took an even more grave view of things, and a further conference with Mr. W. D. Caroe followed. A scheme of work was prepared in consultation with Mr. Caroe, and in so far as it concerned the dome structure it in-

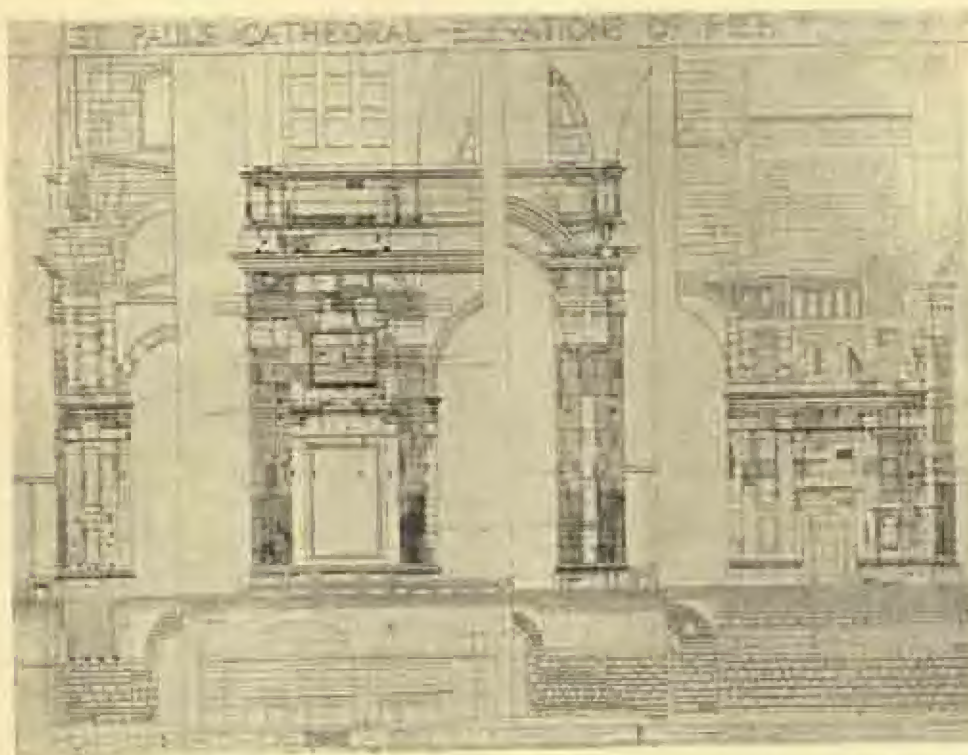


FIG. 10.—ARCHITECTURAL SURVEY: ELEVATION OF PIER SHOWING CONDITION OF MASONRY BEFORE RESTORATION

gallons of water had been pumped away. The corrosion of the iron cramps was also extending and causing, first of all, superficial disfigurement, and then deeper damage, and as stone after stone fractured, the ashlar casing of the piers became weaker and less effective in withstanding the pressure from the rubble core.

Between all these causes there was continuous action and reaction which gave rise to defects in the building, which Sir Mervyn Macartney, who succeeded Mr. Somers Clarke in 1906, had to contend with. From the experience he gained in the early years of his surveyorship and from a thorough

included some grouting by gravity, as experiments with grouting by pressure carried out by Sir Francis Fox by somewhat similar methods to those used by him at Winchester, had not proved very suitable to St. Paul's. Under this scheme of repair, among other things, Sir Mervyn Macartney restored the two piers in the south transept, which work, as far as it went, proved satisfactory. The defective condition of the masonry which it disclosed increased his anxiety, and this was further emphasised by the grave views held by Sir Francis Fox which became common knowledge in 1921.

Sir Basil Mott was then consulted, and advised a



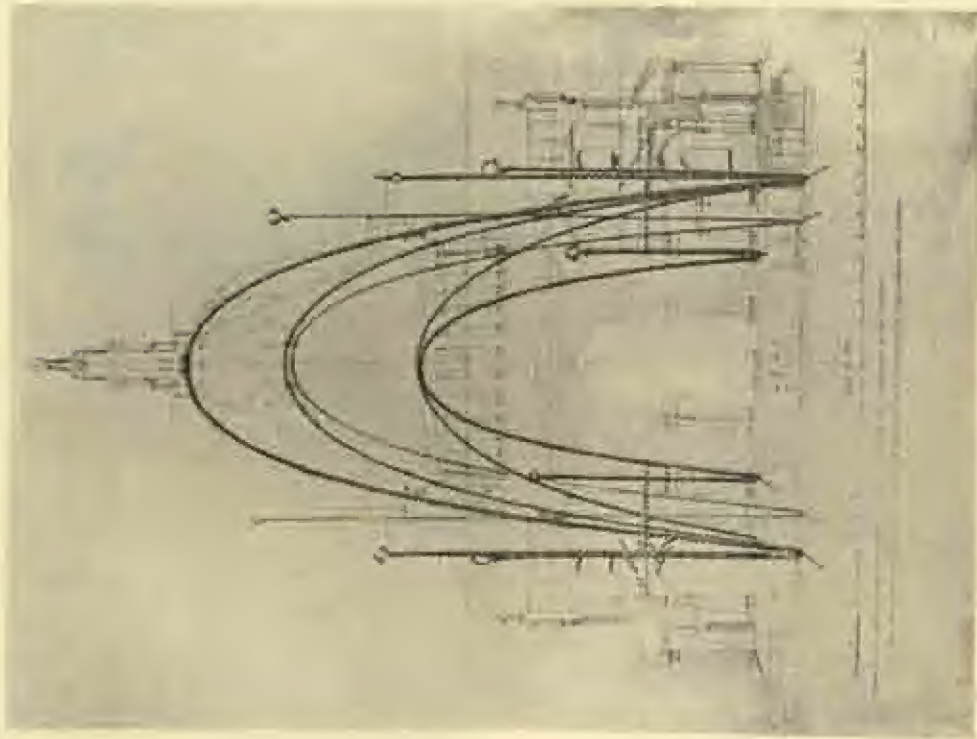


FIG. 11.—ILLUSTRATION SHOWING CATENARIAN CURVES IN RELATION TO THE STRUCTURE

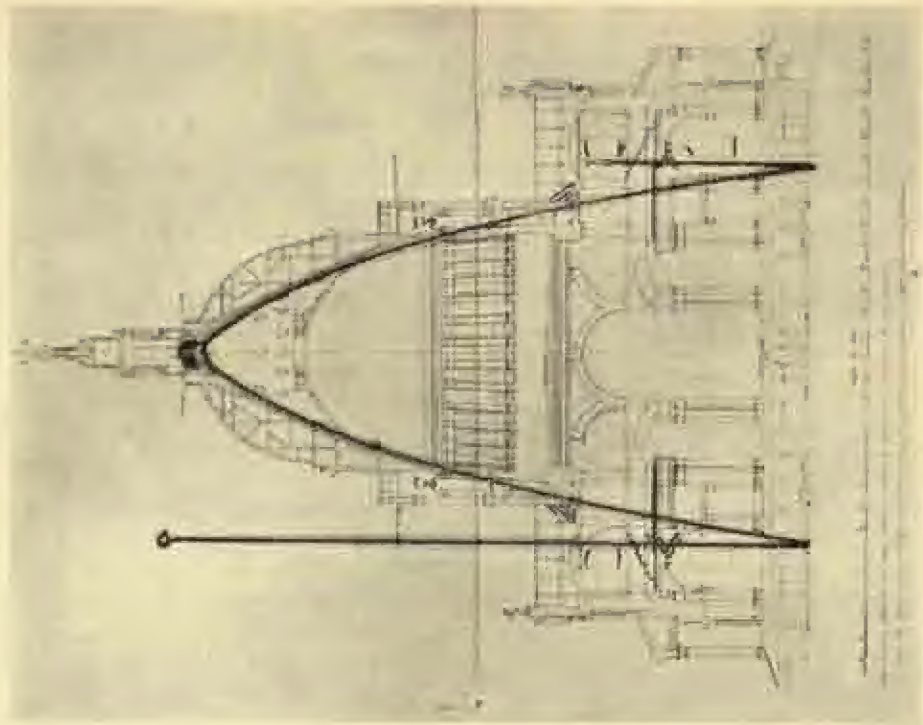


FIG. 12.—ILLUSTRATION OF MODEL WITH WEIGHTED CHAIN IN POSITION



joint committee of architects and engineers to examine and report on the condition of the dome structures. Sir Aston Webb and Sir Mervyn Macartney served as architects, and Sir Basil Mott, Sir George Humphreys and Mr. E. C. Trench as engineers. Sir Aston Webb was elected chairman.

This committee (or as it has been called "The Commission") inaugurated the long and thorough examination of the dome structures and recommended the preservation work, the completion of which has recently been celebrated. A thorough

work recommended by the Commission, and appointed its technical members as a works committee to carry it out. Like its predecessor, this was also a joint committee of architects and engineers. Sir Basil Mott became chairman, and it included the engineering members of the previous Commission, namely, Sir George Humphreys and Mr. Trench, and also Sir Charles Morgan as representative of the Institution of Civil Engineers, with Sir Aston Webb and Sir Mervyn Macartney as architects, and Capt. C. Stanley Peach as repre-



FIG. 12.—ORIGINAL STUDY BY WHEN FOR DOME OF CATHEDRAL.

survey of the building was commenced and a great deal of useful research and many important experiments were carried out, which proved of great value to the subsequent work. The second report of the Commission, towards the end of 1924, was followed by the famous "dangerous structures notice" which fired popular imagination and gave rise to some panic over the safety of St. Paul's.

Funds were collected in response to appeals made early in 1925 by Canon Alexander, the Cathedral Treasurer, to which *The Times* gave most valuable assistance, and a representative committee was appointed to administer these funds. The committee advised the closing of the dome area to facilitate and expedite the preservation

work recommended by the Commission, and appointed its technical members as a works committee to carry it out. Like its predecessor, this was also a joint committee of architects and engineers. Sir Basil Mott became chairman, and it included the engineering members of the previous Commission, namely, Sir George Humphreys and Mr. Trench, and also Sir Charles Morgan as representative of the Institution of Civil Engineers, with Sir Aston Webb and Sir Mervyn Macartney as architects, and Capt. C. Stanley Peach as repre-



what uncommon arrangement has proved well suited to the special requirements of St. Paul's. It has worked smoothly and harmoniously, and it has accomplished in a short space of time an amount of work beyond the powers of one individual, however varied his experience or however great his capacity to undertake responsibility and inspire public confidence. The work throughout has had the benefit of consideration and criticism from many standpoints and the varied experience of many minds, and a unanimous agreement was reached on all measures put into effect.

The restoration work carried out by the Works Committee may be roughly classified as follows:—

1. Engineering and architectural surveys and research.

2. Work to the structure, including grouting and reinforced metal work, the repairs of masonry and structural work incidental thereto.

Hard and fast lines cannot be drawn between these sections of the work, nor can they be considered in watertight compartments. In practice, each benefited by the results and experiences of the other.

The engineering survey and the observations connected with it, which were inaugurated by the Commission of 1921, were reorganised and extended under the works committee. Its record consists of volumes of figures, levels and diagrams of measurements, taken with the most perfect and accurate instruments obtainable, and includes the selection of suitable points in the building for measuring movements, thus keeping it under complete and continuous observation. Measurements as fine as one-thousandth of a foot can be observed and have actually been taken and recorded. The plan of the dome area (Fig. 8) shows the numerous levelling, plumbing and measuring points installed. The system of levelling has now been extended to the whole building.

Thermometers have also been placed in different parts of the structure and in some cases actually in the thickness of the walls. The maximum and minimum variations in temperature have been recorded at regular intervals over a long period.

At any future time the smallest movement of the building can be detected and its direction and extent ascertained and compared with the established records, and this has already furnished reliable and valuable data on which to base opinion. The absence of any such data in the past proved a serious difficulty to the Commission in their task of estimating the condition of the building, and of devising the best treatment for the defects which they found.



FIG. 14.—PHOTOGRAPH OF MODEL OF ONE OF THE PIERS SHOWING HIDDEN CONSTRUCTION



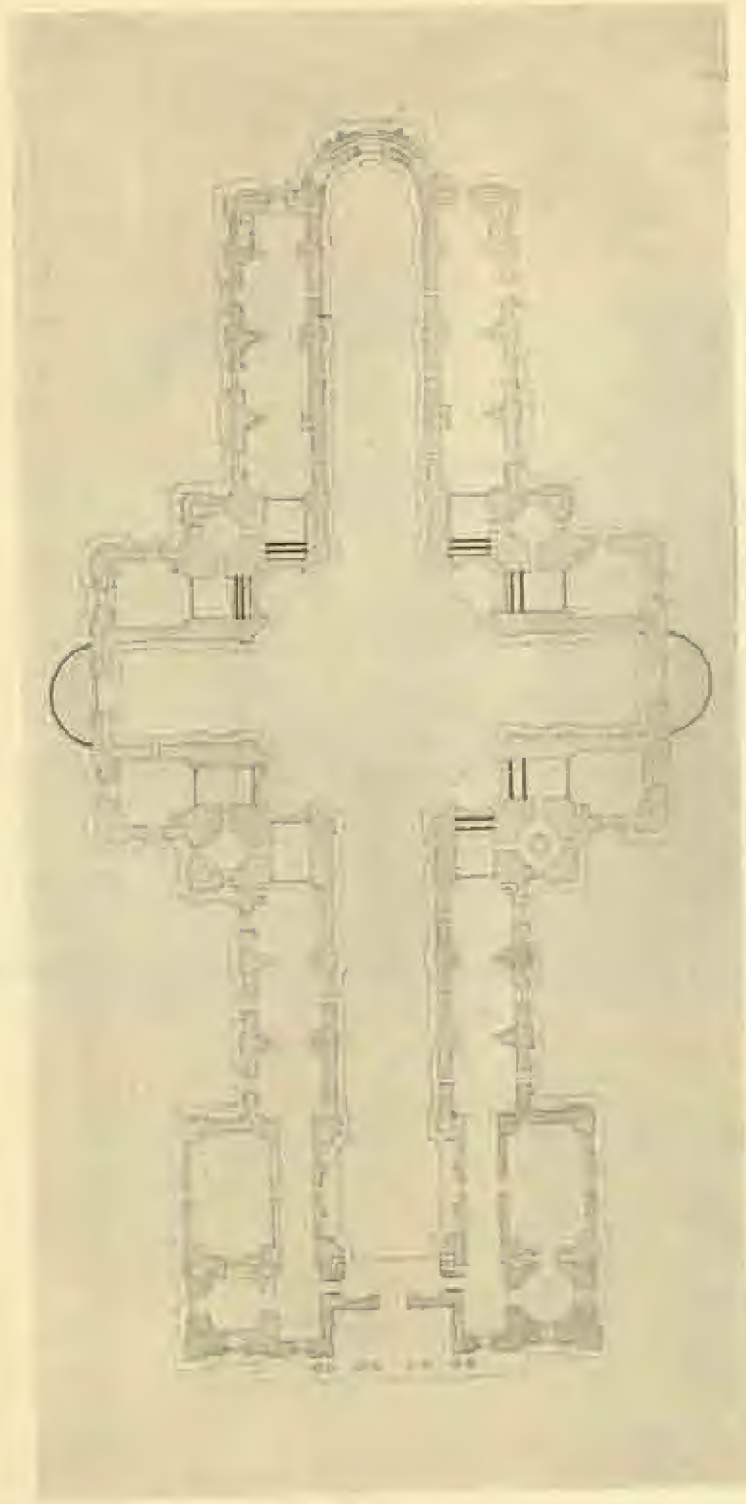


FIG. 13.—SHOWING HOW THE BASES INSERTED AT THE CIRCULAR WALLS  
(Gallery Level, Black; Higher Level, Dotted)



The architectural survey consists of a series of complete and accurate plans and sections (Figs. 9 [*head-piece*] and 4) and numerous isometric studies and photographs to illustrate the local and general research into the structure, and includes the construction of many scale models both of the building and various works proposed from time to time. Much useful information was obtained from these models, and they greatly facilitated the consideration

and the principles which may have guided Wren to some extent in his design of the building. In the early part of the seventeenth century, Galileo's theory that a catenary curve was the proper figure for an arch of equilibrium, was announced, and it is probable that Wren was cognisant of this (Fig. 11) and possibly considered its bearing on the design of a circular structure, as about this time Galileo's theory had aroused considerable



FIG. 10.—ONE OF WREN'S BROKEN TIE BARS

of the works carried out. These surveys are complementary to one another, and together constitute the complete survey.

As part of the architectural survey, a complete examination was made of the whole of the ashlar casing of the eight piers and the condition of each stone was recorded on a series of drawings, one of which is shown here (Fig. 10). These have been supplemented by photographs and further drawings made during the progress of the work, which indicate the position and size of every new stone and cramp inserted, and the conditions of the piers as completed.

The models include a somewhat unusual one which throws some light on natural arch action

interest and was being elaborated by mathematicians, among whom Leibnitz, Huygens, and the two Bernoullis, published opinions on various forms of arches and their thrust. To test this theory, in its relation to St. Paul's, we suspended chains over a section of the building, which traced in a remarkable way the natural arching of the structure, and also marked the position of some of the principal settlements. On adding a weight, proportional to the lantern and suitable to the chain, the latter corresponding to the weight of the cone, the chain traced the unusual shape of the cone almost exactly, as shown on this model (Fig. 12). Applying a chain in the same way to an original study by Wren, in the British Museum,



for the dome of St. Paul's (Fig. 13), it coincides with the curve drawn by him on both the sections, which he seems to have used as the guiding line of the design. The position also corresponds to one of the chains on the model shown.

An articulated model was found very helpful

for the dome of St. Paul's (Fig. 13), it coincides with the curve drawn by him on both the sections, which he seems to have used as the guiding line of the design. The position also corresponds to one of the chains on the model shown.

for the dome of St. Paul's (Fig. 13), it coincides with the curve drawn by him on both the sections, which he seems to have used as the guiding line of the design. The position also corresponds to one of the chains on the model shown.

for the dome of St. Paul's (Fig. 13), it coincides with the curve drawn by him on both the sections, which he seems to have used as the guiding line of the design. The position also corresponds to one of the chains on the model shown.

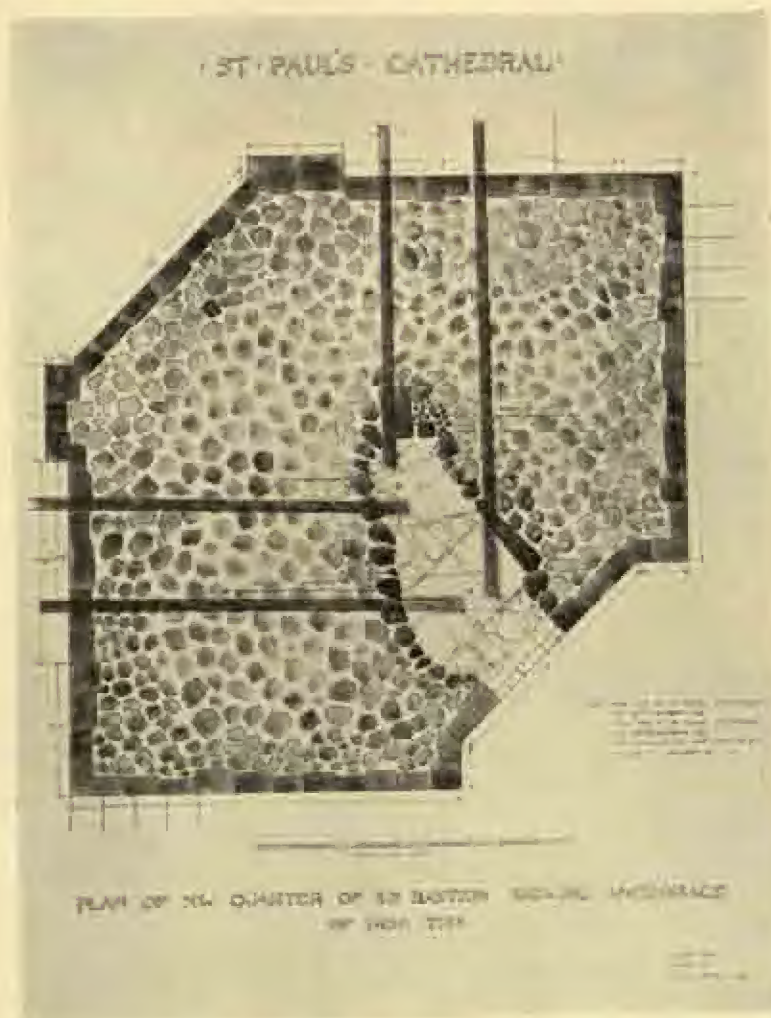


FIG. 17.—PLAN OF NORTH-WEST QUARTER OF SOUTH-EAST BASTION SHOWING ANCHORAGE OF IRON TIES

in studying the effect of compression in the structure from the various causes enumerated. A testing frame was devised whereby the superstructure could be placed where desired on the supporting piers and arches, the position of the piers being established on a plan and transferred by plumb lines to the overhead frame where a fine adjustment could be made by suspending

take place in the model as it had in the actual building. Frames were devised whereby test loads corresponding to the loads in the building could be brought to bear either on the inner or outer drums, separately or together. When the load was applied by the combined drums, as Wren intended it to be, little effect was produced beyond causing some inward inclina-



tion of the piers at the top and a slight sinkage (in relation to the bastions) and at the inner faces. When the drums were disconnected and were left free to move independently of each other, the sinkage and inclination increased, and caused the piers on the model to crack in a similar manner to the piers in the building. Heavy loading in proportion to the strength of the model was applied, and a series of experiments, continued over a period of time, brought out to a remarkable degree the strength and balance of Wren's design, and the dislocation from the independent action and unequal loading of the drums. A model of a portion of the actual building itself (Fig. 14) shows the hidden construction in one of the piers from the foundation to the top of the buttresses. This model was used and frequently referred to when considering work proposed to strengthen the building, and it formed a reliable basis for the construction of other models.

The iron ties inserted by Wren between the piers and bastions were explored. Their position was located at the four corners of the crossing, as shown on the plan (Fig. 15). One set is placed at gallery level, and one in the walls some feet higher, all being below the springing of the great arches. The lower set consists of two flat iron bars 4 inches by  $\frac{1}{2}$  inch as shown, and the upper of two square bars 2 inches by 2 inches. The arrangement is the same in all cases, except in the north-west quarter where only the upper ties exist. Investigations and electrical tests revealed that most of these ties were broken, and had separated, as shown in Fig. 16, owing to the inward inclination of the piers. The ends of these ties were turned down and anchored into large stones in the bastion. Fig. 17 shows the anchorages of the four lower ties in the south-east bastion, and the extent of the excavation required to locate them can be seen. The main part of the work comprised the strengthening of the piers and the superstructure above the platform level. A general programme was first prepared, which was, however, subject to variation to suit it to the special requirements of each pier. The general scheme is shown on Fig. 18. It is an elevation of one of the piers on which the positions of the injection holes are marked. The system was varied where necessary to fit in with the architectural embellishments of the piers. The holes were spaced about 4 feet apart horizontally and 5 feet vertically. A plan of these holes at one level in a pier in the crypt is shown

on Fig. 19. The length and direction of the holes were determined with the object of knitting together, with the reinforcement, all parts of the masonry. Rods were of considerable length, in many cases being as much as 18 feet. A series of these

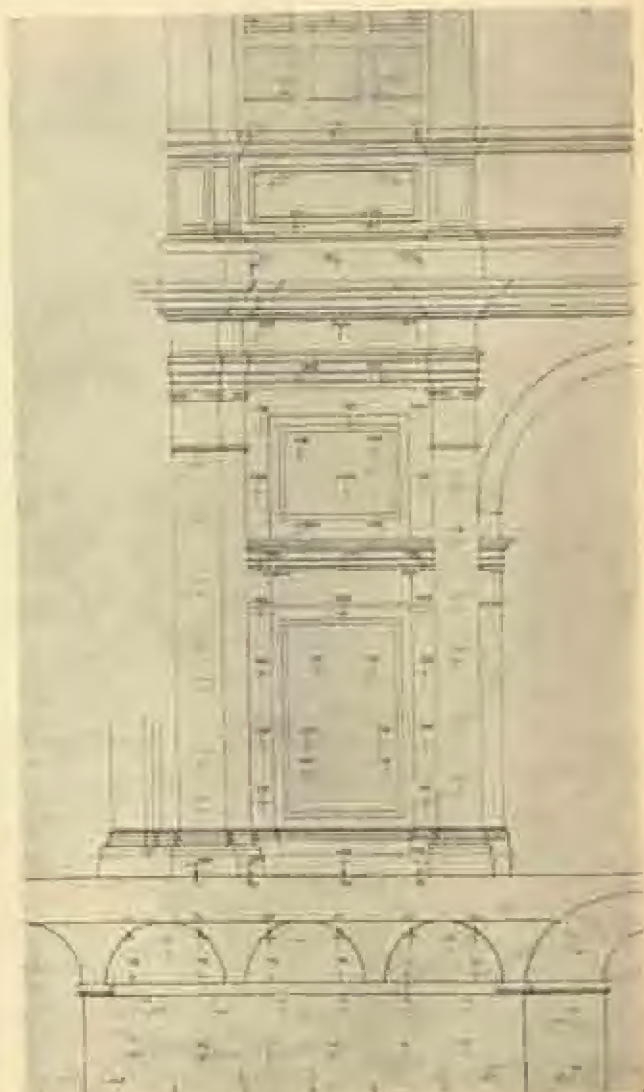


FIG. 18.—ELEVATION OF ONE OF PIERS SHOWING POSITIONS OF INJECTION HOLES

holes, each 2 inches in diameter, was drilled to the required length from either side of the pier and the dust was driven out by compressed air. The grout, consisting of equal parts by volume of loose cement and water, was injected at a pressure of 50 lbs. per square inch, at the hole,



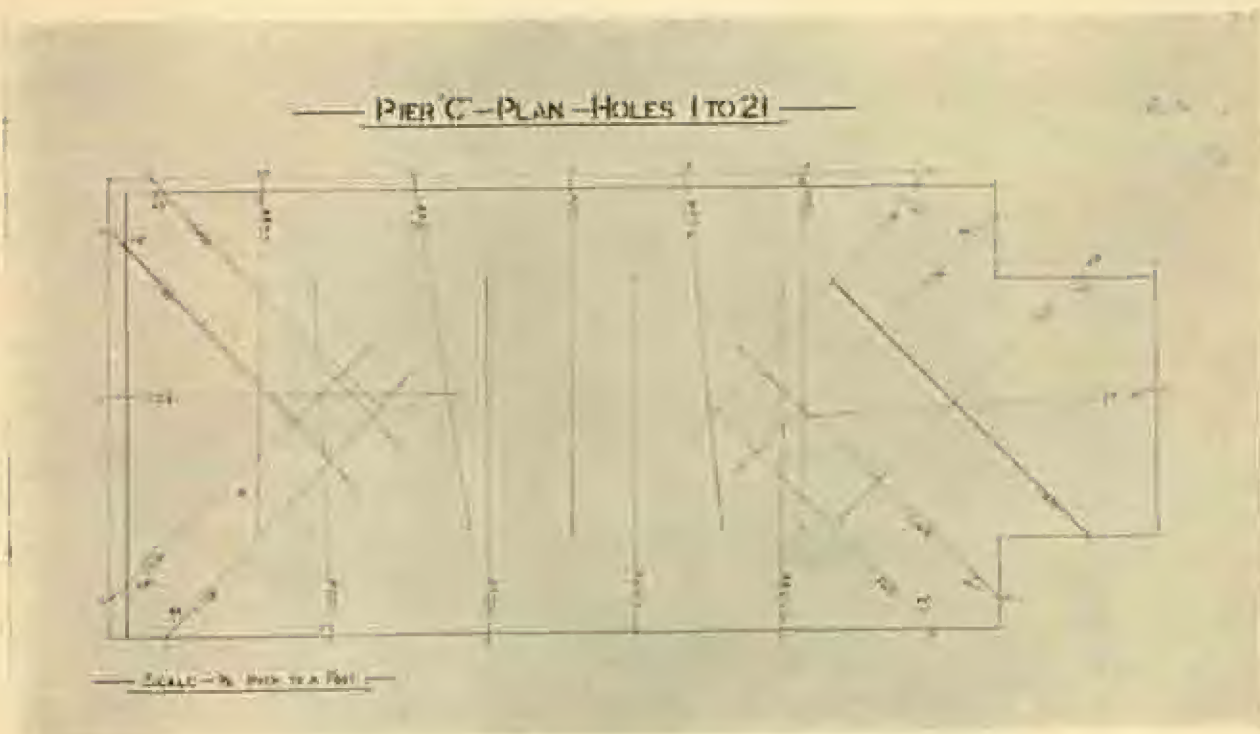


FIG. 19.—PLAN OF INJECTION HOLES AT ONE LEVEL IN A PIER IN THE CRYPT



FIG. 20



allowance being made for any great loss of pressure due to head. After an agreed time (generally a day) the cement was drilled out of the holes, which were then injected again, the operation being repeated at least twice, and in some cases as many as six times, before refusal point was reached.

obtaining a satisfactory adhesion between it and the cement. As a result of lengthy experiments, an oval indented bar of a constant cross-sectional area of 1 sq. in. and with an ultimate strength of 45 tons per sq. inch was eventually selected. This type of bar obtained a satisfactory grip of the



FIG. 21.—LOWER BEARING PLATES BELOW WHISPERING GALLERY LEVEL.

Finally reinforcing rods were inserted in each hole and grouted up. The material for reinforcement received long and careful consideration. After tests by the engineers and the National Physical Laboratory, it was decided to use Firth "Stay-brite" steel, which showed a remarkable resistance to corrosion, even when tested with the rough surface left by the rolling of the bars.

In consequence, however, of the non-corrosive nature of this material, difficulty was found in

cement without losing any of its strength through reduction of section.

The total quantity of cement injected into the eight piers, from the foundations to the underside of the platform, which is about 80 feet above the church floor, was approximately 90 tons, and 37 tons of reinforcement were required. In the course of the work, especially when replacing Wren's broken ties to which reference has been made, cores were recovered showing that the



grout had successfully bound together the internal aggregate. A specimen of one of the cores was exhibited. As soon as the grouting and reinforcement were sufficiently advanced, the work of restoring the ashlar and removing the iron cramps of the piers was put in hand. The veneer or splintered parts of the stones were cut away until the depth of the fracture was reached. New stones were then inserted and cramped to the old with Delta metal cramps. Where, however, the damage extended to the full depth of the original stones, they were generally taken out entirely and replaced with bond stones carried back to the core. Over one thousand iron cramps varying in size from 2 inches to 4 feet have been removed. An example of these and the damage done by them is shown (Fig. 20). The capitals generally were in a very bad condition. Many of the volutes and acanthus leaves had broken away and had been temporarily and badly repaired. The members of the main cornice, particularly the egg and tongue enrichments, were riddled with iron, and large pieces were loose and might have fallen. Wren's system of cramping the stones

together resembled a series of chains in each course of the ashlaring, and the same system was followed as far as possible when inserting the new "Delta" cramps replacing the iron. A system of sixteen stainless steel tie-rods were inserted at Gallery level to replace Wren's broken iron ties and connect the ends of the piers with the inner walls of the bastions. Eight were 4 inches in diameter, and eight were 3 inches. The 4-inch tie-rods have an ultimate strength of 600 tons, while the 3 inch have 300 tons. The ends were anchored at either end by plates concealed in the masonry. To prevent further independent action between the two drums a system of bracing was adopted of diagonal tie-rods on either side of the radial walls, combined with horizontal members, to restore the bond which was an essential feature of Wren's design. The 48 diagonal stainless steel tie-rods are each 38 feet 6 inches long and 4 inches in diameter, with bearing plates at either end, the lower being buried in the masonry of the Whispering Gallery and the upper resting on the outer drum at the level of the peristyle. The 96 horizontal rods are each about

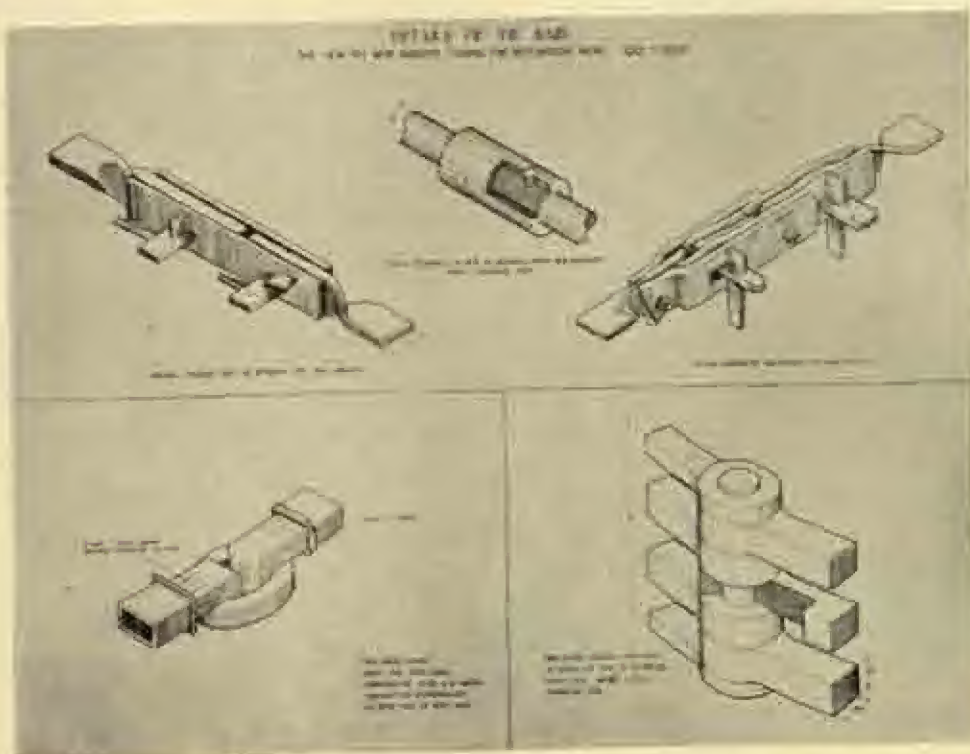


FIG. 22.—PIN JOINTS ON THE NEW BELT. Shown in bottom right-hand corner



16 feet in length and 2½ inches in diameter, 48 being near the upper and 48 at the lower level. The lower bearing plates at Whispering Gallery level

timber roof of the peristyle, which will materially assist as an additional hoop round the drum. The radial walls between the drums and the projecting

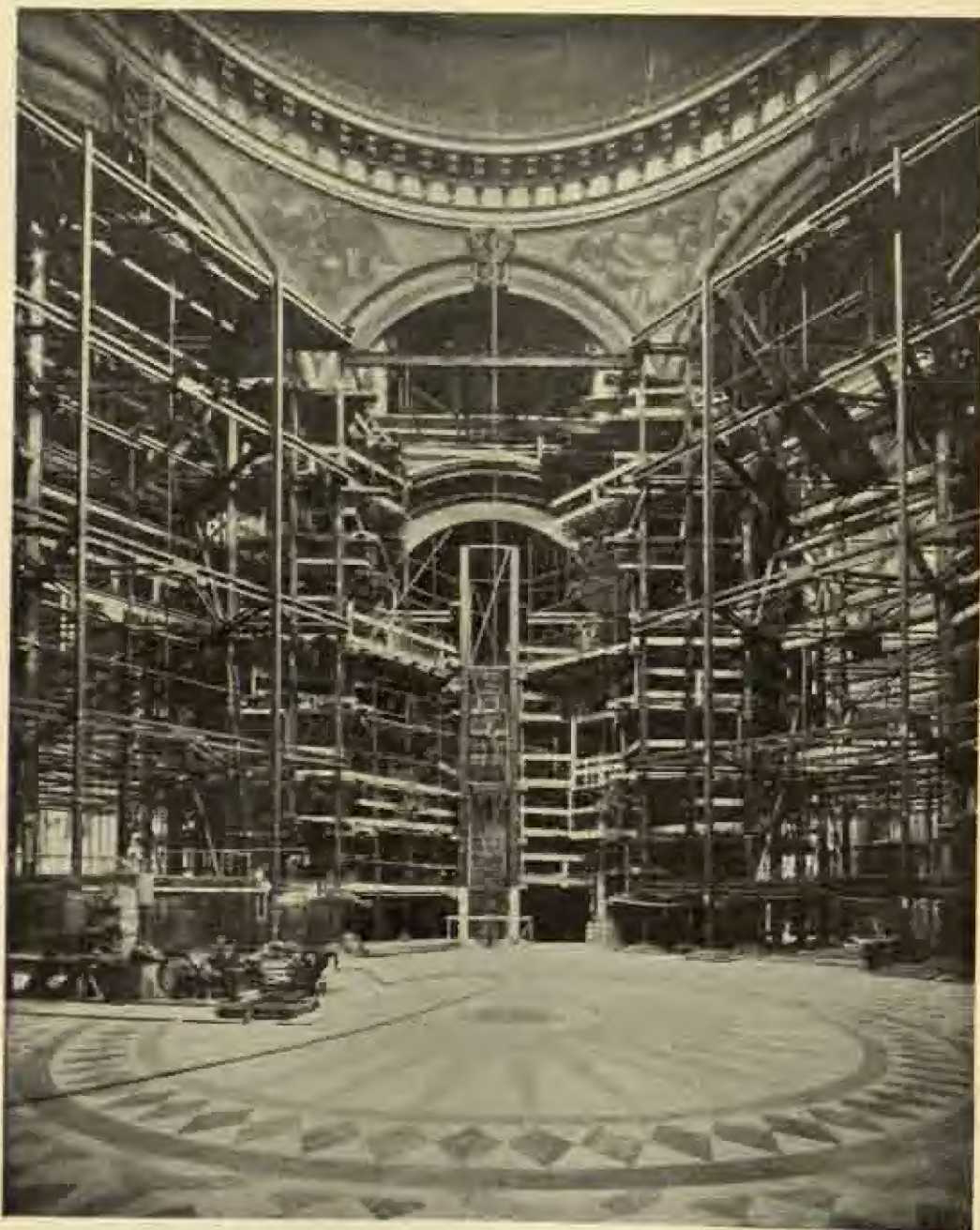


FIG. 23.—VIEW OF DOME AREA SHOWING STEEL FRAMEWORK STRUCTURES AND TIMBER STRUTTING

are illustrated (Fig. 21). A reinforced concrete raft was constructed to replace the old lead and

buttresses were grouted and reinforced in a similar manner to the piers, the reinforcement being carried



through to the inner drum. Two chain belts have been constructed to encircle the drums. The upper is erected immediately over the buttresses, and the lower just above the extrados of the great arches, which is the lowest level at which it could be fixed as a continuous level band without cutting into the arches. The upper belt consists of 30 sets of links, 15 of four members and 15 of three, bent to the curve of the drum, which at this level is 438 feet 10½ inches in circumference. The links are connected by vertical pins 3½ inches in diameter. The chain was a close fit but was further tightened by wedging from the drum before being finally encased in concrete, the wedges being removed during the latter operation. The lower belt is similar in design and strength, but as it is farther away from the drums it is 497 feet long. The two chains together weigh approximately 57 tons.

A model of the bracing and reinforcement will, it is hoped, eventually be on exhibition in St. Paul's Cathedral.

Each link of the great chain used by Wren consists of eight bars welded together and turned down at the ends into a circular ring, a common type of metallic bond, extensively used in the Middle Ages. It is a great contrast to the pin joints of the new belt (Fig. 22). This drawing also shows a pin and cotter joint used by Wren to connect the bars of the iron ties between the piers and bastions, and, in addition, the screwed coupling of the new circular ties which replace them.

The scaffolding and shoring used was an extensive undertaking. In the Crypt this was carried out entirely in timber, but above the Church floor permanent steel structures were erected under each arch carrying mobile timber strutting to the faces of the piers. These structures also afforded a satisfactory means of supporting the scaffolding required throughout the work (Fig. 23).

It is hoped that the permanent exhibition in the Cathedral, which the Dean and Chapter contemplate, may prove of general interest and



VIEW OF DOME FROM NORTH-WEST



educational value, and prove a great attraction to visitors, especially architects and architectural students.

The underlying principals of the preservation work have been to fortify the building where weak

without marring its beauty or interfering with the historical value of Wren's craftsmanship, and to pass it on intact to future generations leaving no scars or disfigurements of the labours of the last few years.

#### VOTES OF THANKS.

Canon ALEXANDER [*Hon. A.*]: The President, I suppose, has conferred upon me the quite unexpected honour of moving a vote of thanks to-night partly because I have been associated to some extent with this work from the very beginnings in 1911, 1912, 1913, and partly because I can regard from a somewhat philosophic and detached attitude the two great professions, architects and engineers, who have co-operated. I believe they have regarded me, through all these years, rather as a kind of comfortable cushion or buffer. As you know, they do not always agree upon every subject, and they look at things from rather a different point of view. Sometimes I have found it to be my function to try to persuade the lions to lie down with the lambs—nothing will induce me to explain to this audience which I regard as the lions and which the lambs—but I can truthfully say that, whatever slight differences of opinion there may have been in the early stages, it is a great testimony to the value of the work we have done that this great committee of engineers and architects of the first eminence in the country are entirely unanimous as to the processes that have been adopted for the safety of the Cathedral, and they tell us, with perfect unanimity, that as long as the Cathedral is not interfered with by excavations in the neighbourhood, it will be, and is at this moment, stronger than it was when it was originally built. That is a very satisfactory result of a great many years of work. I am not, myself, either an architect or an engineer, but, though the engineers have often said to me very nice and kind things, the architects have gone farther and have conferred upon me the honour of making me an Honorary Associate of this Institute. I only hope that that honour does not mean an examination in the principles of architecture. But, at any rate, at the moment I regard myself as somewhat inclined, in balance, to the side of the architects.

This lecture is the work of two architects. One of them, Captain Peach, I have heard of for the last five years and known very well, and have heard a great deal about his inventive mind and the very great attention he has given to this difficult work. And the other lecturer, Mr. Allen, I feel a certain responsibility for. I have known him very intimately for something like twenty years, and I can only tell you that he has developed a most extraordinary knowledge of the Cathedral, and that it will always owe him a very great debt for the work he has done for it. I cannot, myself, understand how two people can combine in producing one lecture, but I know it has been done,

and I have reason to know what a very great amount of thought, labour and experience of the Cathedral have gone to the making of this lecture. I am sure you will wish me to express, on your behalf, the very hearty thanks of us all both to Captain Peach and Mr. Allen, for their work and for their lecture, and for the very remarkable pictures with which they have illustrated what they have had to tell us.

Sir BASIL MOTT, Bart., C.B.: I have been asked—and it is with very great pleasure I rise to do so—to second the vote of thanks to the two gentlemen who have prepared this paper, supporting what Canon Alexander has already said. It is getting late, and I will not detain you, though I should like to have had the opportunity of saying a few things, in reference more particularly to the work that has been done from an engineering point of view, but it would mean another lecture, and I am sure you would not care to listen to me. I should like to say this: it has always been the feeling of myself and my colleagues that in big works of this kind architects and engineers should be associated together. There have been difficulties, and various points have been raised, but may I take this opportunity of saying that, during the time I have had the privilege of being associated with the architects who have been our colleagues on this Committee, we have had nothing but the very greatest courtesy, and consideration, as well as the very greatest help from the gentlemen who have been nominated to be associated with us. I should like to express my very deep appreciation of all that Captain Peach has done, for what Sir Aston Webb, Mr. Macartney and others have done. And as for Mr. Allen, I am an old man, and he will not mind my saying that I have formed the very highest appreciation of his great ability, and I have for him a deep affection.

The PRESIDENT: I should like now to put to the meeting the resolution which has been proposed by Canon Alexander, and seconded by Sir Basil Mott, and I have no doubt you will carry it by acclamation.

Carried by acclamation.

Mr. GODFREY ALLEN and Mr. STANLEY PEACH [*F.*] replied.

The PRESIDENT: One of the great features of this interesting meeting is the fact that there is a collection of models and photographs in the next room, and I have no doubt that, if we ask Colonel Sankey, he will be able to give explanations there on any points which we may like to raise.



## Reviews

### VITRUVIUS RE-TRANSLATED.

BY PROFESSOR FRANK GRANGER [A].

VITRUVIUS ON ARCHITECTURE: *Manuscript Translation and Illustrative Drawings* by Frank T. Baggallay.

Mrs. Baggallay has placed the Institute under an obligation by the gift of the late Mr. Baggallay's work upon what is still the most important treatise dealing with the architect's calling. It is desirable that the results of so much skilled labour should not be wasted. Perhaps it might be possible to arrange and bind in convenient form the parts of the manuscript, and even to reproduce some of the careful drawings which are a valuable contribution to the interpretation of the text. There will always be people to whom Vitruvius is important as the exponent of building operations under the early Roman Empire. To them the opportunity should be given of convenient access to what is in effect a commentary upon Vitruvius.

Since the edition of Castellus, 1730, reported by Schneider, no English translation of Vitruvius has been published along with the Latin text to which it corresponds. The translation of Newton, 1771 and 1791, was so badly done that it was entirely superseded by Gwilt in 1826. Gwilt, however, depended upon the Latin text of Schneider, which gave place in 1867 to that of Rose, who based his text upon the famous Harleian Vitruvius of the British Museum, along with a later manuscript now at Wolfenbützel. This is the Latin text used by Mr. Baggallay. Mr. Baggallay saw, however, that the Harleian Vitruvius alone need be regarded, but he was content to take the readings of Rose. I am glad to find that Mr. Baggallay came independently to the opinion which I formed in 1911 when I began the systematic collation of the Harleian Vitruvius. The Latin text of Vitruvius which I have the honour of being engaged on for the Loeb series is avowedly based upon this, the oldest manuscript.

Further examination of the Harleian Vitruvius seems to justify a change in its ascription. Rose, in the preface to the Latin text used by Mr. Baggallay, roundly states that it was written in Germany in the ninth century. I will briefly summarise the evidence which, in my opinion, proves that it was written in Saxon England in the eighth century at the scriptorium of the joint monastery of Jarrow and Wearmouth. The famous Codex Amiatinus of the Latin Vulgate was written there about A.D. 700. When the Vitruvius is compared with this, it appears that the scribes have inserted similar phrases in several places. Further, there is a close resemblance of the rubrication and the uncial letters. And lastly, the Latinity of the Vitruvius presents striking coincidences with the Old Latin which can be traced in the Vulgate. Turning to the ornamentation, on the last of the blank pages left in the body of the Vitruvius, there is the sketch of a cross in the same Celtic style as those which precede each of the Lindisfarne Gospels, a style characteristic of Northumbria. It thus appears that Charlemagne owed his Vitruvius to an English origin.

In England itself the tradition of the Harleian was

taken up in the scriptorium of St. Augustine's Abbey, Canterbury. The Cotton Vitruvius, even if not written there, was in the possession of the library. The Laudian MS., now at St. John's College, Oxford, was actually written at Canterbury in 1316. It is well known that Charlemagne had copies of Vitruvius made for the use of his architects. There is no doubt that in England the early Romanesque builders regarded themselves as following the Roman tradition, and therefore obeyed the rules of Vitruvius so far as they could be carried out with the small stones at their disposal.

The background, therefore, of English mediæval art is to be traced back in some degree to Vitruvius himself. Hence in the fine exhibition at South Kensington it would have been appropriate to include the Laudian MS., if not the Harleian itself. We end, then, as we began by recognising the aptness of Mr. Baggallay's judgment that the text of Vitruvius may be based on the manuscript known to the catalogue as B.M.Harl.2767.

### FRENCH WROUGHT IRON.

BY EDWARD WARREN [F].

LE FER FORGÉ EN FRANCE. By Louis Blanc. Sm. 8vo. Paris. 1930. [Van Oest.] 200 fr. (£2 2s.).

The French architectural genius has always manifested itself in minutiae, as in the more salient facts, of architecture, and especially in the elaboration and adornment of wrought ironwork, used so freely in the seventeenth and eighteenth centuries for protective purposes and adjuncts of buildings.

The volume under review is admirably illustrated with designs by various talented metal workers, actually applied to, or intended for the adornment of buildings, many of them of a very high order of elegance, and all showing the freedom of design and accomplishment of workmanship that are so characteristic of our talented neighbours.

The study of the volume in question, and of its generous provision of excellent illustrations, will naturally lead British architects to institute comparisons between the French and British methods of use, and treatment of detail, of forged ironwork, as applied to buildings and their enclosures, fences, gates, "grilles," staircase ramps, and the like.

The French have always shown conspicuous ability in the use of forged iron, and their blacksmiths, even in this mechanical age, are frequently very capable in their craft. In the periods under review, the late seventeenth and eighteenth centuries, the increased safety of life, outside of stone walls, and the increasing desire, while preserving some protective demarcation of private or public property, to leave its beauties visible to the outside world, led to the use of iron fences and gates, which, while affording adequate protection from intrusion, exhibited buildings, parks and gardens in a handsome manner to the public gaze.

The creation of wrought iron screens for the seclu-



sion and protection of church altars, quite naturally superseded the older fashion of stone and wooden screens, and the innumerable churches of France afforded ever-increasing opportunities for the "grilles," gates and railings, which are part of the typical furniture of these buildings.

In comparison with English wrought ironwork of contemporary periods, the French smiths of the late seventeenth and eighteenth centuries showed, as a rule, a greater exuberance of fancy, a more pronounced instinct for prettiness of effect than their English contemporaries in the same craft. In comparison with British wrought ironwork of the same period, the French work, in spite of its technical excellence, frequently strikes the insular observer as being, as we say, "too clever by half."

The direct adornments of wrought iron flowers and fruits, of bouquets and baskets, in spite of the extreme skill shown in their creation, seem over exuberant and often inappropriate as architectural adjuncts. The sense of architecture, indeed, is often lost in the delight in craftsmanship. This appears strongly in the staircase ramps, which, with all the pronounced ability exhibited in their design and workmanship, strike one as less appropriate to their purpose, and less expressive of the ascending intention of a stair, than do any British wrought iron examples of the corresponding periods.

The British instinct for wrought iron staircase ramps has generally been to express rather definitely the sense of ascent, in the abeyance of the ramps to the individual steps, or, at any rate, to successive groups of steps. Wren's spiral staircase at St. Paul's Cathedral shows the insular instinct in this regard. But Sir Christopher, when he was embellishing his work at Hampton Court for his screens, and his admirable "King's Staircase," called in the highly skilled Tijou.

In regard to "grilles," and especially gates, our native smiths, of the period under review, showed a very fine sense of appropriate design, and achieved the fine instances of rich sobriety to be seen in the wrought iron gates of Gray's Inn Gardens, and the gates of Chelsea Hospital, of Trinity College and Magdalen at Oxford, and of numberless mansions and Manor Houses in Great Britain, and indeed, in the many handsome old gates and railings, lamp-irons and the like, in London and its suburbs, and notably in Westminster and Chelsea, Hampstead and Bloomsbury. They could never, however, approach the extreme skill, delicacy, and fine craftsmanship of their contemporary French brethren, whose admirable artistry is so well shown in *Le Fer Forgé*.

It is a great list, that of Messieurs Fordrier, Fontaine, Mariette, Crepy, Oppenord, Briseux, Huquier, De Cuvilles, and Lamour; and most admirably illustrated *Le Fer Forgé*.

## AIRPORTS. BY JOHN DOWER (A.)

INTERNATIONAL AIRPORTS. By Steadman S. Hanker. 8vo. New York. 1929. (Ronald Press Co.) \$5.00.

The author, who obviously has an extensive knowledge of aerodromes and air-transport in the United States, made a detailed examination of the principal civil aerodromes of Europe during a summer tour in 1928. The chief characteristics of these stations as they exist and their variation in the different countries are briefly outlined in the first 140 pages of the book, with a considerable number of good photographs, but, for an architectural reader, with far too slender an accompaniment of plans and diagrams. There is a considerable padding throughout the book of statistics, reprints of traffic forms, weather-reports and the like, of comparatively little value; and the remaining 50 pages consist entirely of reprints of international and Pan-American conventions and traffic regulations.

The details given of aerodrome buildings and layouts are already rapidly becoming out-of-date—inevitable when the subject is a development so new, so rapid and so experimental. Architecturally, the author concludes, the best European practice is superior to American, though to a rapidly diminishing extent. The aerodrome administration buildings, in particular, comprising the passenger and goods "stations," offices, restaurants, etc., are on the whole better thought out here than there, and more permanently built in brick, stone or concrete. Tempelhof, the airport of Berlin, is perhaps the best arranged European example, and enjoys the special advantage of being placed on the fine, level turf of an old parade ground of ample size not more than 15 minutes away from the centre of the city. Le Bourget (Paris), Croydon (London), Schiphol (Amsterdam), Waalhaven (Rotterdam), Kastrup (Copenhagen) and Littorio (Rome) are other European landing-grounds described in detail, along with representative American airports at Buffalo, Chicago and Oakland. Italy at present takes the lead in soundly planned seaplane stations; Germany in the number of aerodromes and routes equipped for commercial flying; while England has at Croydon probably the best technically equipped aerodrome of the world, though few would claim any charm or architectural merit in its sombre aspect. Brief but useful chapters on the handling of passengers and freight, on construction especially of hangers, and on airport lighting follow the descriptions of individual stations.

Of the book as a whole it may be said that those who have followed the subject in the architectural and technical journals of the various countries will find little that is new; but much may be forgiven to a book which, as far as we know, is the first on its subject in English. The aerodrome designer or student will find here at least a clear statement of the chief technical requirements that must limit his schemes. Safety considerations are obviously paramount and have, by now, been worked out in considerable detail, while the comings and goings of such a very varied traffic and personnel—pilots, mechanics, office staff, radio and meteorological staff, passengers and their luggage, mails, freight, sightseers and many others—need exhaustive enquiry and ingenious treatment.

There is obvious scope for a more extensive treatment.



of a new problem comparable in magnitude and difficulty to that raised by the development of railway transport in the last century. It is to be hoped that such a book may before too many years elapse be published in England; where we are just beginning to awake to the fact that other countries are ahead of us in aerodrome development. Meantime, it is for architects and town-planners to see that the dismal tragedy of our railway-stations is not repeated, and that the aerodromes—the stations of this century—are well-placed ornaments to the cities they serve.

### RECENT FOREIGN PERIODICALS.

By GRAHAME B. TURRS [A].

Impressive evidence of the recent extraordinary prosperity of the United States is to be seen in the June number of the *Architectural Forum*, which is a special number given to office buildings. Practically all those illustrated are skyscrapers, most of which have been built since 1924, but there are drawings of many that are due for completion this year. They range in size from those costing from \$500,000 up to \$6,500,000, and are an emphatic answer to those who believed that the day of the skyscraper was over. They are still being built in large numbers, although, financially speaking, most of them are not very successful, many are bad, and a few only may be regarded as a good investment. From seven examples whose cost is given, it appears that the average price of these high buildings is 2s. 10d. a cubic foot, which seems remarkably low when high labour costs are considered.

The June number of *The Architectural Record* contains a special reference section dealing with petrol filling stations either alone or in conjunction with service stations for cleaning and greasing, and analyses the problem with the aid of diagrams and many actual examples. The filling stations in the States are all either owned and run or leased by the oil companies and are well designed on standardised lines.

Our newspaper proprietors arrange things so that we get practically no reliable news from Russia, so most Englishmen will read with surprised interest the article in *Pencil Points* (June) about the Soviet "Five Year Plan" of 1928, by which all industries are, within five years, to be systematically developed with the help of foreign experts. An American architectural firm, Albert Kahn, Inc., was appointed consulting architects and engineers by the Soviet Government, and A. L. Drabkin, who was in charge of their Moscow office, writes about the erection of the Tractor Plant at Stalingrad which cost £800,000. The digging and concreting was finished during the mild weather, but the steel, which was imported ready fabricated from the United States and Germany, was erected and the building finished during the winter—an innovation in Russia. Such was the keenness of the workers (who included many women), and the efficiency of the architects and the Russian officials concerned, that the building was completed in nine months—three months earlier than expected. This was a truly remarkable

achievement considering the unskilled labour available and the unusual conditions that had to be faced. *California Arts and Architecture* for June is a good example of a magazine of general interest, but with the emphasis on architecture.

Among the Continental magazines, *Baukunst und Städtebau* (for June) takes a prominent place both for its excellent format and for the interest of the buildings it deals with. These include a factory at Grotzuheim by Karl Ochs for Brown, Boveri & Co., and Thomsen & Schlegel's fine crematorium at Frederiksberg, Denmark. This is of brick, but has a large angel carved in high relief, in stone, built-in over the main door; the lower part of the external wall is covered with four tiers of arched niches, presumably for urns. *Deutsche Kunst und Dekoration* (July) has details to large scale and general views of Josef Eberz's good mosaics in St. George's Church, Stuttgart. In the other German publication, *Innen Dekoration*, for June, the first article is on the decoration and furnishing of a large living room by Le Corbusier. The furniture is of tubular metal frames, either upholstered with padding or with canvas seats and backs. The ensemble looks very well, if rather strange.

The French weekly, *La Construction Moderne*, for June 15, gives reconstructions of classical buildings, taken from the *Salon*, including the Arch of Titus worked out on a geometrical basis. The following week's issue is given up to a church at Boussais. It is possible that the interior looks better actually than it does in the photograph; it is of brick, and has a most complicated-looking roof and mural paintings set in panels in the brickwork. There is a luminous glass cross on the altar. The next number is interesting and all the illustrations are views of Stockholm. The issue of *L'Architecture*, for June 15, deals fully with the new Parisian Theatre Pigalle, which was built for M. Henri de Rothschild by Sclia, Just & Blum. This is the last word in advanced design, as far as the ample vestibules are concerned. These are kept as light, cold and metallic as possible. The walls are metalised and there is a screen of horizontal nickel-plated steel bars separating the two foyers, which are flood-lighted with changing, coloured lights. The auditorium itself is a complete contrast, being very sombre in colouring. The walls are mahogany, the seats red, and the carpet brown. The lighting comes from the ceiling, which is designed as a huge flower, along whose petals light is thrown from troughs in the outer edges. The equipment of the stage is up to date and most complete. The May number of the Buenos Aires *Revista de Arquitectura* reproduces a prize-winning house in the English manner which has caught the spirit of the style rather better than usual. The June number is given exclusively to the Tornquist Building, which has an elaborate banking hall on the ground floor with offices, restaurants and club rooms above. This is in the French eighteenth-century style. The Spanish *Arquitectura*, No. 3, gives a large number of competition designs for an Institute at Saragossa containing a big auditorium and many smaller ones.



NOTES BY MEMBERS OF THE SCIENCE  
STANDING COMMITTEE

**WATER SOFTENING.** *The Base Exchange or Zeolite Process.* Department of Scientific and Industrial Research. Price 6d. net. H.M. Stationery Office.

This twenty-page pamphlet, by A. R. Martin, Ph.D., is written to summarise existing knowledge on this subject, which is of importance to architects who are often called upon to advise on the provision of water-softening plants.

The author, after a short historical introduction, compares the base-exchange method with the older lime-soda process, proceeds to deal with the preparation of the necessary materials, and finally with the theory of the process in the light of existing knowledge.

The base-exchange material—a hydrated aluminium silicate—is subjected to the water to be softened in a suitable cylinder, when, due to a chemical reaction, the "hardness" (lime and magnesia) in the water is removed, being replaced by soda from the base-exchange material. The softened water thus contains sulphate, or carbonate, of soda; the former is known medicinally as Glauber's salts. The reviewer has never seen this aspect of water-softening alluded to, though in the case of a very hard water the medicinal effect of this change might prove to be appreciable. After use the base-exchange material is regenerated by the use of ordinary salt (sodium chloride), which decomposes the aluminium silicates of lime and magnesia, re-forming sodium aluminium silicate and soluble lime and magnesium chlorides, which are carried off in solution. The author discusses, shortly, the softening of water for various purposes, the preparation of base-exchange material and natural zeolites, and, finally, the theories of the above changes with the aid of chemical formulae, and the pamphlet concludes with a useful list of references to the subject.

ALAN E. MUNBY [P.].

## Correspondence

## ENGLISH CHURCH ART

3118, St. Stephen's House,  
(Victoria Embankment),  
Westminster, S.W.1.

16 July 1930.

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—The comments by Mr. Voysey in the JOURNAL for July 12, on the exhibition (now over) held under the auspices of the Church Crafts League, and for which I was in some measure responsible as its new chairman, are remarkable as being written from the craft point of view entirely, consequently, in a show containing over 500 exhibits, and embracing architecture, sculpture, painting and music, the *lacune* must, obviously, be considerable. He mentions none of the fine arts (except Mr. Stephen's work) and endeavours to draw comparisons between living and dead art by contrasting the mediæval work at S.K.M. (now showing) and picking out corresponding crafts as exemplified at Caxton Hall last month.

First, a little thought will show this to be unfair,

because: (1) In the living-art show it was largely a matter of luck what exhibits were available; (2) the examples at S.K.M. have been collected over many years and may be presumed to be the finest of their several kinds; (3) time and money, in the dead examples, were not matters of moment, as they are to-day; and, lastly, the spirit which informs the artists of the League is based definitely on worship and not on mere efforts to please, as Mr. Voysey infers.

Second, the artists of the League can, and often do, produce works as fine as mediæval work. Take, for instance, the finest piece of embroidery shown (which he does not even mention), No. 452, the dorsal from Wantage Chapel; this equals anything shown at S.K.M., and surpasses many another.

I am surprised, however, that he does not comment upon the most outstanding sculpture displayed at Caxton Hall, which was a revelation to those who pride themselves on their extensive knowledge of current fine art. I will not expand by mentioning names, but would just add that a few copies of *The Handbook*, with 50 plates, are still available at the de la More Press, 2A, Cork Street, Bond Street, W.1, at 5s. 6d., with *The Catalogue*, post free, and this should be in the hands of all architects interested in modern church art. It is a worthy souvenir by a famous press and of a great exhibition, called by one discerning critic "The Royal Academy of Ecclesiastical Art."—I am, dear Sir, yours faithfully,

P. A. ROBINSON [F.].

TWELFTH INTERNATIONAL CONGRESS OF  
ARCHITECTS, BUDAPEST, 6 TO 13 SEPTEMBER,

1930

11, Suffolk Street,  
Pall Mall East, S.W.1.

23 July 1930.

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—I am requested by the Organising Committee at Budapest to inform those who are proposing to take part in the International Congress of Architects that the date up to which applications can be received at the Congress Bureau (IV Reálmodos-utca 13-15 Budapest) has been extended to 25 August 1930.

In view of the varied travel requirements of those members who have already notified me of their intention to attend, it has been decided that the proposed arrangements for a combined party, travelling from London to Budapest, will be cancelled and that members shall make their own arrangements for travel and hotel reservations.

It is advisable that these should be made as soon as possible, and any information on this subject can be obtained from Messrs. Thos. Cook and Sons (Mr. Allard), Berkeley Street, London, W.1, or through the branch offices of Thos. Cook and Sons.

I shall be glad to answer any questions with regard to the Congress arrangements generally on hearing from any members who intend to take part in the proceedings.—Yours faithfully,

H. P. CART DE LAFONTAINE [A.].

Hon. Secretary, British Section, Per-  
manent International Committee of  
Architects.



## SCIENCE STANDING COMMITTEE.

## REPORT OF THE CONFERENCE ON DAMAGE TO PLUMBING WORK CAUSED BY FROST.

[The following report, which has been approved by the Council, has been printed in pamphlet form and copies can be obtained on application to the Secretary, R.I.B.A., price three-pence each.]

In consequence of the abnormal weather conditions of January and February, 1929, when a severe frost occurred, registering in London as much as 20 degrees Fahrenheit below freezing point, and in some parts of the country even lower, much damage was done to plumbing work, and consequently to buildings and the stock they contained, as well as inconvenience to the public generally.

The work subsequently undertaken by the Science Committee was set in motion by letters received from Mr. Digby L. Solomon, F.R.I.B.A., and Mr. E. Godfrey Page, A.R.I.B.A.

The Science Standing Committee appointed a Sub-Committee to enquire into the whole matter, with instructions to report on any recommendations they might arrive at which might be helpful to architects, builders, and the public generally.

The Sub-Committee consisted of:—

Mr. R. J. Angel,  
Mr. G. R. Farrow,  
Mr. W. A. Harvey,  
Mr. H. D. Searles-Wood,  
Mr. P. J. Waldram

The Sub-Committee appointed Mr. H. D. Searles-Wood as their Chairman.

The Sub-Committee invited the co-operation of the following to assist in their deliberations:—

The Ministry of Health (Mr. A. N. C. Shelley and Miss E. A. Sharp),  
The London County Council (Mr. T. Moodie, M.I.M.E., M.I.H.V.E.),  
The Surveyors' Institution (Mr. R. C. Jull, M.C., F.S.I., M.R.San.I., A.I.Struct.E.),  
The Institution of Municipal and County Engineers (Mr. C. W. Gladwell),  
The Property Owners' Protection Association, Ltd. (Councillor A. G. Shearing),  
The City of London Real Property Company (Mr. L. Sylvester Sullivan),  
The Institute of Plumbers (Mr. W. H. Fairclough),  
The Society of Medical Officers of Health (Mr. D. Maitland Radford, Medical Officer of Health for the Metropolitan Borough of Shoreditch),  
The Institute of Builders (Mr. T. A. Coffin),  
The London House Builders' Association (Mr. Frank Williams),  
The United Operative Plumbers' Association,  
Mr. Edward Willis, F.R.San.I., M.Inst.C.E., F.S.I., Chief Engineer of the Urban District Council of Brentford and Chiswick.

A Questionnaire was sent to the City Architect of Montreal, Canada, and information was obtained from Chicago and Brooklyn on the methods adopted there to prevent damage to pipes during frost.

The Sub-Committee are of opinion that much of the damage to pipes during frost is due to:

(1) Faulty lay-out of the pipes and lack of means of protection against freezing.

(2) Inadequate precautions being taken on the approach of frost.

The Sub-Committee find that whilst legislation gives Local Authorities and Water Companies power to control water mains and supply pipes in the road way, there is at present inadequate control exercised as regards pipes within the premises.

In those parts of the U.S.A. and Canada which are subject to severe frosts, hot and cold water pipes are subject to the control and approval of the Local Authorities. The Sub-Committee are of opinion that Local Authorities or Water Companies should make bye-laws putting the lay-out of water pipes generally on a more scientific footing.

With that end in view, the Sub-Committee have formulated suggestions which might form a basis of such bye-laws, or failing that, the proposals would be helpful as a guidance to architects and builders in their work.

On this matter all the representatives called into consultation with the Sub-Committee are in agreement.

The Sub-Committee's recommendations in addition to the question of bye-laws are as follows:

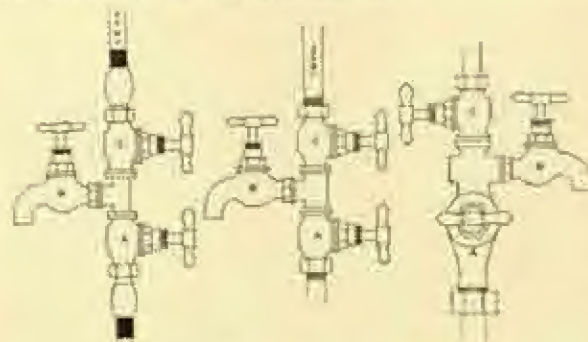
## CONSTRUCTIONAL DATA.

*Depth of Supply Pipe Underground.*—The water pipe from the company's main should be at least two feet under the ground to the inside of the building. Care should be taken that the two feet depth is maintained until the pipe is within the building, and consideration should be given to the avoidance of air lock.

*Stop-Tap.*—A stop-tap should be fixed immediately the supply pipe enters the owner's land. Another should be placed as near as convenient to the floor, at the point where it emerges within the building.

*Draw-off Tap.*—As near as convenient to the latter stop-tap, a draw-off tap should be fixed so that all pipes, which are branches from the main, may be emptied by closing the stop-tap and opening this draw-off tap.

A combined stop and draw-off tap may be used where convenient, and such is recommended.



Reference.—The sketch illustrates the usual arrangement of stop-tap "A" and draw-off tap "B" on the rising main inside the building, with the



addition of an extra stop-tap "C" which is suggested to enable water to be obtained from the draw-off tap "B" without refilling the rising main and branches, when the continuance of frost during the day would render them liable to damage.

*Supply Pipes within the Building and all Branches.*—Supply pipes within the building and all branches to fittings from the supply pipe should, as far as possible, be fixed on internal walls and should be fixed to wood grounds or not directly in contact with the wall, and should be fixed so that they have a fall to the draw-off tap. On no account should water pipes enter the roof space near the eaves, for such a practice not only exposes pipes to risk of freezing, but renders them less accessible. All pipes should be laid so that they have a fall and can be emptied by the drain cock.

*Hot and Cold Pipes to Bath and other Fittings.*—The rules applicable to "Supply Pipes within the Building" should be followed for hot and cold pipes.

*Storage Cisterns.*—When storage cisterns are fixed in the roof space they should be carefully insulated by such devices as a wood-casing made to allow approximately a space of not less than 3 inches all round the sides of the cistern, which space to be packed with non-conducting material. A cover of wood should be fitted on the top of the cistern. All pipes in roof space should be laid on grounds and carefully insulated with either boiler lagging, thick felt, or other suitable material, and if from some unavoidable reason the water pipe should enter the roof at the space near the eaves, particular attention should be given to insulating the pipe at this point.

The overflow-pipe should be insulated from the cistern to the outside wall.

The expansion pipe of a hot water system should be made to discharge over the tank, so as to avoid such pipe being exposed to the open air, as serious accidents frequently occur by exposure.

*Secondary Circulation.*—Where the cost of so doing is permitted a secondary circulation pipe should be taken from the domestic hot water system (or the central heating system) to a point near the bottom of the cold storage cistern or cisterns and there formed in a simple coil and the return taken as far as practicable to follow the course of the rising main and/or the main supply pipe from the storage cistern or cisterns. A stop-tap should be placed on this return, in an accessible position so that this secondary circulation may be thrown out of action when weather conditions do not justify its use.

*Stop-tap on Storage Cistern.*—A stop-tap should be fixed for each supply pipe as near the cistern as possible in an accessible position.

#### INSTRUCTIONS TO HOUSEHOLDERS TO PREVENT DAMAGE BY BURST PIPES.

*Precautions to take before the frost arrives.*—1. Make certain there is a stop-tap and drain-tap on the main supply pipe after it enters the house, so that you can control the water supply.

2. Make yourself familiar with what taps and cisterns this pipe supplies, and the method of emptying.

3. The other cold taps (if any) will be supplied from the storage cistern.

4. Pipes and cisterns which are exposed to the frost, that is to a temperature below freezing point, should be wrapped with hair felt or other non-conducting material.

5. See that all taps shut off the water properly, and do not keep taps dripping.

*Precautions to take during frosty weather.*—1. Shut off the water at night by closing the stop-tap on the supply pipe entering the house, and empty the pipes by opening the scullery cold tap or the tap at the lowest level on the main supply pipe and the drain cock and flush the w.c. cisterns.

2. If any of the taps on this supply pipe should cease to run water at any time, close this stop-tap.

3. If a hot water tap should cease to run water, but other hot water taps are functioning, it means that only the branch to that tap is frozen.

4. If all hot water taps cease to function, it means that the cold supply to the boiler is frozen, or the supply pipe to the storage cistern is frozen. Draw the fire, shut off the stop-tap in the supply pipe and only then open all hot water taps.

5. See that all plugs to lavatory basins, baths and sinks are put in the wastes each night.

6. The foregoing are general instructions to prevent freezing or render first aid yourself to avoid unnecessary damage by burst pipes. Send for the services of a plumber immediately a pipe freezes.

#### MANAGEMENT OF HEATING APPARATUS.

In order to avoid danger to heating apparatus and water fittings, caretakers must see that the following instructions are carefully complied with during frosty weather:—

1. Fires in heating apparatus must be kept alight all night. Sufficient fire should be maintained to keep the pipes and radiators warm and circulation should be maintained throughout the building.

2. The feed cistern and the distributing pipe to the boiler must be covered and protected from frost by sacks, boards or other covering material. This cistern must be examined daily, and if it is found that the supply pipe is frozen, and that the cistern is short of water, it must be filled by hand.

3. If, owing to unforeseen circumstances, the fire has been allowed to die out, great care must be taken before the fire is re-lighted to see that the water throughout the pipes or radiators is not frozen.

4. All windows and doors should be closed at night, especially those in corridors and lavatories where there are pipes or radiators.

5. All fresh air inlets, including those behind radiators, must be carefully closed at night, and at all times if the apparatus is not working. Extract ventilators should similarly be closed, where practicable. (This clause refers specially to cases in which the premises are not occupied at night.)

6. In the case of tubular boilers, precautions should be taken as under (1).

H. D. SEARLES-WOOD (F.S.).

On behalf of the Conference.



# Revision of Building Regulations

## DEPUTATION TO MINISTER OF HEALTH

On the recommendation of the London Building Acts Committee, the Council invited representatives of the following bodies to attend a conference at the R.I.B.A. with a view to co-ordinating the efforts which were being made by each body to hasten the revision of the London Building Acts:—

The Building Industry Council of Review.

The British Steelwork Association.

The London Employers' Association.

The Incorporated Association of Retail Distributors.

As a result of the Conference, which was held on 16 July, it was decided to co-ordinate the reports which had been prepared and were in course of preparation, and to enlist the support of all technical and other associations interested in the building industry, with a view to making joint representations to the Minister of Health and the London County Council on the urgent need for bringing the present building regulations up to date and into conformity with modern practice.

The Minister of Health kindly consented to receive a deputation from the group of Members of Parliament interested in the movement and, at the invitation of the Members of Parliament and with the approval of the Minister, the personnel of the deputation was extended by the inclusion of representatives of the R.I.B.A. and the other bodies concerned.

The deputation waited upon the Minister on 30 July, and its influential and representative character is indicated in the report taken from *The Times* of 31 July, which is appended.

In the unavoidable absence of the President, Mr. Maurice Webb represented and spoke on behalf of the Royal Institute.

### THE REPORT

The Minister of Health yesterday received a deputation from members of Parliament and representatives of the associations mentioned below on the subject of the restrictions imposed under existing building legislation.

The deputation was introduced by Mr. J. Walker, M.P., and included:—

Mr. Louis Smith, M.P., Mr. J. Baker, M.P., Mr. Clement Davies, M.P., Major Beaumont Thomas, M.P., Mr. Maurice Webb (Royal Institute of British Architects), Mr. C. J. Kavanagh (British Steelwork Association), Mr. Bossom (Building Industry Council of Review), Mr. Searles-Wood (Institution of Structural Engineers), Mr. Holloway (London Master Builders' Association), Lord Ebury (London Employers' Association), Mr. Coppock (National Federation of Building Trades Operatives), Sir Woodman Burbidge (Incorporated Association of Retail Distributors), and Sir Francis Towle (Hotel and Restaurants Association).

Mr. Louis Smith made the following statement, and his views were supported by Mr. Maurice Webb, Sir Woodman Burbidge, Mr. Coppock, Lord Ebury, Mr. Kavanagh, and Sir Francis Towle.

We wish to call attention to the extent to which the control of building, especially in London, has become a serious menace to enterprise and employment not only in the building trades but in the vast number of ancillary trades whose welfare is vitally dependent upon the building industry. There is no

doubt that the cumbrous and bureaucratic control so often exercised far exceeds the limits necessary to safeguard public health and safety which we, no less than the authorities concerned, consider it our business to secure. This control, especially in the sphere of commercial and industrial buildings, is exercised under Acts which in many cases date back to the last century, imposes very serious restrictions upon the use of modern materials and methods of construction, and has given place to the growth of administrative machinery which needs drastic simplification.

If the revolution in building construction which has occurred during the last 30 years due to the introduction of steel and reinforced concrete, to the vastly improved methods of sanitary services, and to the invention of new and improved building methods and materials, continues at the same rate in the future—and who shall say that it will not?—no Act of Parliament can be kept up to date unless wide discretionary powers are given to those who administer it. In the use of these discretionary powers, complex and inelastic methods are almost bound to creep in, and while a relaxation of provisions in the Act suitable for the time it was passed may be granted, this is apt to lead to further restrictive regulations which not only were not contemplated in the Act but are in many cases unnecessary.

This deputation suggests, therefore, that as a first essential the law in London ought to be so susceptible to constant revision as in the provinces, otherwise it will become out of date almost as soon as drafted.

We are conscious that a great deal has been done towards simplification and uniformity of control in the limited field open to the Ministry through the model by-laws and otherwise and we see no reason why statutory revision should not now be considered by Parliament to bring such control as is deemed necessary in the public interest into tune with the times, afford all local authorities a guide to securing public safety and health and simultaneously give the industry a chance to develop as other industries by uniformity of practice and standardisation.

The Building Industry Council of Review was recently formed to investigate and report on the lines upon which a rationalisation of the building industry may be achieved, but we feel it necessary to emphasise that the reorganisation and readjustment of the industry is rendered difficult if not impossible so long as the law is not co-ordinated for the whole country. The building industry represents not only a vast field for employment, but building costs are a first charge upon every form of commercial and industrial activity, and in assisting the industry to operate upon business lines rather than upon too rigid a regulation basis the Government can make a valuable contribution to the reduction of unemployment and clear the way for the industry to deal with the other vital aspects of building such as reorganisation, standardisation and finance with which it is faced.

Those bodies which now urge a reform and which are represented to-day have set up a Central Committee to co-ordinate the reports and recommendations at their disposal, and are prepared in conference with your Ministry to suggest lines upon which a solution of many of the existing difficulties and anomalies may be found. Their investigations have to a great extent been directed to close scrutiny of the conditions obtaining in the London area, where all building is controlled by Act of Parliament, administered by different authorities, is subject to varying interpretations and results in a degree of confusion and lack of uniformity which it is necessary to dispel.



Miss Susan Lawrence has stated in a letter addressed to Mr. A. M. Samuel, M.P., that representations from professional societies in regard to the London building regulations have been lacking. The R.I.B.A. have been urging the amendment of the London Building Acts on the London County Council for 10 years, and representations were made jointly by the R.I.B.A., the Institution of Civil Engineers, the Institution of Structural Engineers, and the Surveyors' Institution.

This deputation is of the opinion that building legislation should now be considered on a national basis, and should be confined so far as possible to broad questions of principle.

If the Government is in agreement with our views, the building industry would be prepared to set up a technical and economic advisory council which would review and report upon all aspects of building construction and control which are from time to time deemed necessary to meet the constantly changing conditions. Such a council would make the fullest use of our research and technical and standardisation institutes, and would maintain a constant touch with the Ministry with a view to giving every assistance in maintaining a flexible and up-to-date code. At a time of such serious unemployment and industrial distress we urge that this vital question is ripe for review by the Government.

The Minister said in reply that he gathered that the difficulties of which the deputation complained were experienced chiefly in London, and that comparatively little difficulty had been encountered in the provinces. But in so far as Scotland was concerned, he would see that a report of the proceedings was sent to the Secretary of State.

As regards London, the matter was, of course, one for the London County Council to consider. Obviously he could not express any definite opinion until he had heard the views of the Council, but he could certainly assure the deputation that he so far sympathised with their representations that he would himself undertake to discuss the position with the London County Council. He was aware that, as Mr. Kavanagh had stated, a technical committee of the Department of Scientific and Industrial Research were about to issue an interim report on the technique of steel construction, and he hoped that this would facilitate the standardisation of building practice throughout the country.

### BUILDING REGULATIONS.

The following letter from the President, Sir Banister Fletcher, was printed in *The Times* of 18 July:

*To the Editor of "The Times."*

SIR,—We have been much interested in the recent correspondence in your columns\* on the necessity of recasting our building regulations on a national scale and in conformity with modern building methods and requirements.

For ten years the R.I.B.A. has been urging the necessity of bringing the Acts and regulations relating to London building up to date. There is no doubt that they are now hopelessly out of date, and are definitely retarding building enterprise and adding to its cost. With so serious an issue as the present state of unemployment in the country, it is surely necessary that this aspect of the problem should be dealt with, and at once. In reply recently in the House to a question by Mr. Arthur Michael Samuel as to what

steps were being taken to bring the London Building Acts up to date, it was said:—

"The London Building Acts are private Acts of Parliament and it rests with the London County Council to propose to Parliament any measures to bring them up to date."

May we, therefore, plead through your columns to the authorities to take immediate steps to deal with this matter?

Yours faithfully,

BANISTER FLETCHER,

*President, Royal Institute of British Architects.*

### CHARING CROSS BRIDGE SCHEME.

It was announced in *The Times* of 31 July that definite and practical proposals bearing upon the terms of reference to the Advisory Committee appointed by the London County Council in connection with the Charing Cross Bridge scheme would be considered by the Committee. It was stated that such proposals should be accompanied by sufficient explanations and plans, and should be addressed to the Clerk of the Council at the County Hall, Westminster Bridge, S.E.1, to be there received if possible by 30 August 1930, but in any event not later than 10 September 1930.

The terms of reference to the Advisory Committee were "That an Advisory Committee be appointed by the Council for the purpose of preparing and submitting to the Council an agreed scheme for a road bridge and approaches at Charing Cross within a net cost of £12,500,000."

### THE COUNCIL FOR THE PRESERVATION OF RURAL ENGLAND, (C.P.R.E.)

The Council for the Preservation of Rural England will hold their Third National Conference for the Preservation of the Countryside at Welwyn Garden City, Herts, on 9, 10 and 11 October 1930.

The following will provide the subjects for discussion at the various sessions, and at each session a fully qualified expert will outline a suggested policy in relation to the specific subject selected, and this policy will provide the basis for subsequent discussion.

1. The Preservation of Commons, Parks, Open Spaces and Nature Reserves, and the Provision of Playing Fields.

Opening Paper by Sir Lawrence Chubb, Secretary of the National Playing Fields Association, the Commons, Open Spaces and Footpaths Preservation Society, and the Scapa Society.

2. Town and Regional Planning in their Relation to the Objects of the C.P.R.E.

Open paper by Sir Theodore Chambers, K.B.E., F.S.I.

3. Education and Citizenship in their Relation to the Safeguarding of the Countryside, with special reference to schools, rambling, scouting, guiding, etc., and the use and enjoyment of the countryside.

4. Flora and Fauna, including the Preservation of Trees, Wild Flowers, Roadside Plants and the Protection of Birds.

\* Letters on this subject have appeared in *The Times*, among others, from the London Employers' Association, the British Steelwork Association, the Institutions of Civil and Structural Engineers, the Surveyors' Institution, the National Federation of Building Trades Employers and Building Trades Operatives.



The British Correlating Society for the Protection of Nature will provide the opening speaker.

It is hoped that the following, amongst others, will be present to preside at the various sessions: The Viscount Hampden (Lord Lieutenant of Hertfordshire), The Marquess of Salisbury, The Earl of Lytton, The Earl of Crawford and Balcarres (President).

The sessions will be held in the Welwyn Theatre, which holds 800 people.

All societies and organisations desiring to send delegates or individuals attending the conference are requested to apply to the Secretary, The C.P.R.E., Mr. H. G. Griffin, 17, Great Marlborough Street, Regent Street, London, W.1.

#### FOURTH PAN-AMERICAN CONGRESS OF ARCHITECTS.

RIO DE JANEIRO, JUNE 1930.

A brief report of this Congress of representatives and students from the various countries of South America has been received from Mr. R. R. Prentice [F.], of Rio de Janeiro, who attended as the official representative of the R.I.B.A. The United States and several European countries also sent delegates.

Subjects of current professional interest were discussed at the sessions, and the exhibition of architectural designs was well representative of the current practice of South America, and reflected the influence of European training in many instances. The students' work was especially fine. It is hoped that the Congress may have a beneficial effect on local affairs.

Illustrations of the Congress meetings, from the local press, have been sent by Mr. Prentice, and a full report will be issued later. The next Pan-American Congress will be held in 1933, at Havana, Cuba, when it is hoped that Britain and the United States will be more fully represented.

#### THE MOUNT PLEASANT ARTIST'S REST HOME.

The Mount Pleasant Artists' Rest Home has been built by Mr. F. W. Reckitt as a convalescent rest home for the temporary residence and recuperation of male painters, sculptors, engravers and architects who require a change after illness or a rest. It is within three minutes' walk of Rickmansworth Station, and is surrounded by a large and charming old garden with a delightful view across the valley. The rooms are very comfortably furnished, and in winter the whole house is warmed by central heating with a radiator in every room and fires in the reception rooms. There is accommodation for nine guests.

The length of a stay is usually limited to three weeks, but the period may be extended at the discretion of the Trustees. The charge is £1 a week. Particulars of how to apply for admission will be supplied to anyone interested on application to the Secretary, Architects' Benevolent Society, 9, Conduit Street, London, W.

#### SIR FREDERIC KENYON.

RETIREMENT FROM BRITISH MUSEUM THIS YEAR.

Sir Frederic Kenyon will retire at the end of the present year from the position of Director and Principal Librarian of the British Museum, which he has held since August, 1909.

## Allied Societies

### ESSEX SOCIETY OF ARCHITECTS.

About eighty of the members and friends of the West Essex and Colchester Chapters visited St. Paul's Cathedral on 10 July 1930 for a privately conducted inspection of the restoration work, models and drawings. The visitors were impressed with the works recently carried out and greatly interested in parts of the cathedral not usually shown.

The party afterwards visited the new premises of Messrs. Maple, Ltd., Tottenham Court Road, where by the kindness of the directors they were entertained to tea. The new buildings, design and construction difficulties, were explained by Mr. Evan C. Macpherson, the company's architect. The visitors were conducted by Mr. Frank Wray, one of the directors, over some of the showrooms, which cover many acres of floor space, comprising a very fine and extensive collection of antique and modern furniture, fitted "Period" rooms and decorative schemes, an interesting and instructive exhibition of art and craft work of the highest class.

The President of the Society, Mr. Duncan W. Clark, A.R.I.B.A., proposed a vote of thanks to the directors of Maples, Ltd., and their architect, which was seconded by Mr. Percival Blow, A.R.I.B.A. (Hertford Chapter). This was responded to on behalf of the directors by Mr. Frank Wray.

During the tea interval the new badge of office was presented to the Chairman of the West Essex Chapter, Mr. S. Phillips Dales, F.R.I.B.A. The badge was designed by Professor Richard Garbe, A.R.A., executed by Mr. H. Murphy, and presented to the Chapter by Mr. William Evans, an inscription to this effect being placed on the obverse of the jewel. The badge is executed in silver with niello and champlevé enamel, having silver bars on the neck ribbon to take the name of the Chairmen of the Chapter, past and future, the names of J. J. Crowe, J.P., O.B.E., and Christopher M. Shiner, A.R.I.B.A. being already inscribed on the bars.

Mr. William Evans presented the badge to the chairman, Mr. S. Phillips Dales, who thanked the donor on behalf of the Chapter.

### OBITUARY

#### W. T. M. WALKER [F.].

Born in Uttoxeter, Staffs., the late W. T. M. Walker was 74 years of age at the time of his death.

He was articled in Reading and afterwards came to London to join the staff of George Sherrin. When he left Mr. Sherrin he opened an office in Finsbury Circus, E.C.2. His most important work consisted of factories, the largest and most complete being that for the Lamson Paragon Supply Co., Canning Town. This factory finally included a social centre with a large hall for concerts and dancing, and with dining halls for the workpeople and staff, a feature in factory life which was, at the time, little known in the London area. Other factories include that for Messrs. Clement Talbot, Ltd., a one-storey building with fire-resisting north light roofs without columns and an administration block having a good street elevation; factories for Messrs. Spillers, Ltd., Bermondsey, where reinforced concrete was used as far as the London County Council would allow at the time; a factory for Messrs. Henry Grant and Co., in the same district, where reinforced concrete rafts were used in the early experimental stages of this material; Ilford, Ltd., Truflgar Works, Merton Abbey; Huson Works, Hainault; and many smaller factories in and round London.

#### MR. GEORGE P. ALLEN.

Mr. George P. Allen, F.R.I.B.A., has been elected by his fellow Rotarians, President of the Bedford Rotary Club for the year 1930.



### THE INTERNATIONAL BUILDING TRADES EXHIBITION, 1930.

It has been customary for many years past for the Secretary of the Institute to send an invitation to members to attend the biennial Building Exhibitions at Olympia. Through the kindness of the director, Mr. H. Greville Montgomery, Hon.A.R.I.B.A., each of these invitations carries the sum of 2s. as a contribution to the Architects' Benevolent Society. The Exhibition is open from 17 September to 1 October inclusive, and it is hoped that members of the Institute will use the ticket that will be found enclosed with this issue of the JOURNAL.

### R.I.B.A. MAINTENANCE SCHOLARSHIPS IN ARCHITECTURE.

The Royal Institute of British Architects announce that the R.I.B.A. Maintenance Scholarship (1930) of £100 has been awarded to Ralph Dickinson of the Birmingham School of Architecture. The Scholarship is tenable in the first instance for one year and renewable for two further periods of one year each.

In addition the following Scholarships, each of £100 a year (except where otherwise stated) have been renewed for a further period of one year each:—

G. G. Laidler (Architectural Association School of Architecture).

Hubert Bennett (School of Architecture, University of Manchester).

F. W. Wright (School of Architecture, University of Sheffield).

A. K. Brown (£50) (School of Architecture, Armstrong College, Newcastle-on-Tyne).

The Artists' General Benevolent Institution Scholarship (£100), which is administered by the R.I.B.A., has been awarded for a further year to J. F. D. Wylson (Architectural Association School of Architecture).

### BRITISH INSTITUTE IN PARIS.

Lord Crewe and the committee of the British Institute in Paris have approved the appointment of Mr. Gordon Stephenson as the Chadwick Scholar at the Institute for the year 1930-31. This scholarship, which has been awarded by the Chadwick Trustees, has been founded under the Chadwick Trust for the encouragement of the study of Sanitary Science and Municipal Engineering in Paris. Mr. Stephenson is a fifth-year student of the Liverpool School of Architecture, and is entered as a Student of the R.I.B.A. He won the Holt Travelling Scholarship, and studied for six months at the office of Messrs. Corbett, Harrison, and MacMurray in New York. He was a finalist for the Prix de Rome this year.

### NOTES FROM THE MINUTES OF THE COUNCIL.

7 July 1930.

#### MEMBERSHIP OF COUNCIL.

The President, Sir Banister Fletcher, addressed a few words of welcome to the new members of Council.

#### SIR MERVYN MACARTNEY.

The hearty congratulations of the Council were conveyed to Sir Mervyn Macartney on the honour of knighthood which has been conferred upon him.

### BRITISH ARCHITECTS' CONFERENCE, NORWICH.

The Council passed a cordial vote of thanks to the Members of the Norfolk and Norwich Association of Architects and all those who contributed to the success of the recent Conference at Norwich.

### R.I.B.A. EXAMINATION OVERSEAS.

The following result was reported to the Council:—

*Final Examination, Part I (Design), Singapore, December 1929:* Examined, 1; Passed, 1; Relegated, —.

### TOWN PLANNING AS AN ALTERNATIVE TO IRON AND STEEL CONSTRUCTION AND REINFORCED CONCRETE OR HYGIENE IN THE R.I.B.A. FINAL AND SPECIAL EXAMINATION.

On the recommendation of the Board of Architectural Education it was decided that the acceptance of a paper on the Outline of the History and Practice of Town Planning in the R.I.B.A. Final and Special Examinations as an alternative to either Iron and Steel Construction and Reinforced Concrete or Hygiene be discontinued as from 31 December 1930, having regard to the arrangements for the Examination for the R.I.B.A. Diploma in Town Planning.

### EXEMPTION FROM THE R.I.B.A. FINAL EXAMINATION, EXCEPT THAT PORTION RELATING TO PROFESSIONAL PRACTICE.

On the recommendation of the Board, it was decided, subject to proper safeguards, that in future Schools recognised for exemption from the R.I.B.A. Final Examination be allowed to hold the Examination in Professional Practice with the other Examinations in the final School year instead of at the R.I.B.A.

### THE SCHOOL OF ARCHITECTURE OF THE UNIVERSITY OF CAPE TOWN.

A report on the School of Architecture of the University of Cape Town was considered, and on the recommendation of the Board it was decided, subject to reconsideration in five years' time, that:—

(1) The three years' full-time day course be recognised for exemption from the R.I.B.A. Intermediate Examination.

(2) The five years' Degree Course and Diploma Course be recognised for exemption from the R.I.B.A. Final Examination, except that portion relating to Professional Practice.

(3) The Examination in Professional Practice at the end of the fifth year of the School course be accepted as the R.I.B.A. Examination in Professional Practice, provided that the two R.I.B.A. External Examiners shall act as Examiners in this subject.

(4) Non-University Students who pass the University Examinations be accepted for candidature as Associates of the R.I.B.A. on the recommendation of the R.I.B.A. Local Board of Examiners, after reviewing their work.

(5) External students who possess certificates in respect of the Diploma Examinations in Architecture of either the University of the Witwatersrand or of the University of Cape Town be granted exemption from the R.I.B.A. Intermediate Examination.

(6) With a view to ensuring some relaxation of the condition in favour of students who suddenly find them-



selves confronted with a new set of circumstances, the Senate of the University of Cape Town should allow students accepted as Probationers R.I.B.A. to sit for the external examination for which the two Universities jointly are the examining body for the Union, even if the necessary entrance qualification is lacking, provided the Central Council of the Institute of South African Architects agree.

#### THE SCHOOL OF ARCHITECTURE, BIRMINGHAM.

On the recommendation of the Board, it was decided that the recognition of the three years' full-time day course for exemption from the R.I.B.A. Intermediate Examination be continued, and that the five years' course be recognised for exemption from the R.I.B.A. Final Examination, except that portion relating to Professional Practice.

#### THE SCHOOL OF ARCHITECTURE, THE POLYTECHNIC, REGENT STREET, LONDON.

On the recommendation of the Board, it was decided that the three years' full-time day course be recognised for exemption from the R.I.B.A. Intermediate Examination.

#### LIBRARIES OF SCHOOLS OF ARCHITECTURE.

The Board reported that the grant of £50 provided for the Libraries of Schools of Architecture had been allocated as follows:—

The School of Architecture, Municipal School of Arts and Crafts, Southend-on-Sea ..	£20
The School of Architecture, Robert Gordon's Colleges, Aberdeen ..	£20
The School of Architecture, Armstrong College, Newcastle-on-Tyne ..	£10

#### THE R.I.B.A. AND TECHNICAL COLLEGES AND ART SCHOOLS WITH ARRANGEMENTS FOR THE INSTRUCTION OF INTENDING ARCHITECTS.

On the recommendation of the Board, it was decided, with a view to improving the standard of Architectural Education throughout the country, that:—

(1) A list be published in the R.I.B.A. KALENDAR of Technical Colleges and Art Schools with arrangements for the instruction of intending architects.

(2) The Colleges and Schools included in the list be sent from time to time all R.I.B.A. educational publications, notices, etc., and copies of each issue of the R.I.B.A. JOURNAL.

#### PRIZES.

*The Alfred Bosson Travelling Studentship, 1929:—* The Board reported that they had approved the report on "Country Clubs" prepared on his tour by Mr. Frank Scarlett [A.], Alfred Bosson Travelling Student 1929.

*The Godwin and Wimperis Bursary, 1925:—* The Board reported that they had approved the report on "The Layout of Some Rhine Towns," prepared on his tour by Mr. L. H. Bucknell [A.], Godwin and Wimperis Bursar, 1925.

*The Athens Bursary, 1930:—* It was reported that the President, in consultation with the Officers of the Board, had approved the report on his tour submitted by Mr. G. D. Gordon Hake [F.], Athens Bursar, 1930.

#### ARCHITECTURE IN SECONDARY SCHOOLS.

On the recommendation of the Board, it was decided that further steps be taken with a view to papers on the methods of interesting boys and girls in schools in Architecture and kindred subjects being read at meetings of the Head Masters' Conference, the Incorporated Association of Head Masters and the Association of Head Mistresses, and at meetings of the branches of these bodies.

#### THE ARCHITECTURAL ASSOCIATION.

It was decided to renew the annual grant of £100 to the Architectural Association for the year 1930.

#### ROYAL WEST OF ENGLAND ACADEMY SCHOOL OF ARCHITECTURE.

It was decided to make a grant of £50 to the Royal West of England Academy School of Architecture for the current year.

#### COMPLETION OF THE MOSAICS ON THE STAIRCASE OF THE NATIONAL GALLERY.

It was decided to make a donation of £5 5s. towards the fund for the completion of the mosaics on the staircase of the National Gallery.

#### THE BRITISH SCHOOL OF ARCHAEOLOGY IN IRAQ.

It was decided to make a donation of £5 5s. to the British School of Archaeology in Iraq.

#### THE BUILDING INDUSTRY COUNCIL OF REVIEW.

It was decided to make a donation of £25 towards the cost of the work of the Building Industry Council of Review.

#### THE COUNCIL OF THE BRITISH SCHOOL AT ROME.

Mr. Henry M. Fletcher (Vice-President) was re-appointed for one year as one of the two representatives of the Council of the R.I.B.A. on the Council of the British School at Rome.

#### BRITISH WATERWORKS ASSOCIATION: STANDING COMMITTEE ON WATER REGULATIONS.

Mr. H. D. Searles-Wood [F.] and Lt.-Col. P. A. Hopkins [L.] were reappointed to represent the R.I.B.A. on the Standing Committee on Water Regulations of the British Waterworks Association.

#### THE BRITISH ENGINEERING STANDARDS ASSOCIATION AND PROPOSED STANDARD SPECIFICATION FOR GYPSUM PLASTER.

Mr. W. E. Vernon Crompton [F.], Mr. Alan E. Munby [F.], and Mr. A. H. Barnes [L.] were appointed to represent the R.I.B.A. on the Technical Committee which has been set up by the B.E.S.A. to prepare a standard specification for Gypsum Plaster.

#### REVISION OF THE LONDON BUILDING ACTS.

On the recommendation of the R.I.B.A. London Building Acts Committee, it was decided to call a Conference of representatives of the following bodies with a view to co-ordinating the efforts now being made to hasten the revision of the London Building Acts:—

The Building Industry Council of Review.

The London Employers' Association.

The British Steelwork Association.

The Incorporated Association of Retail Distributors.



## RESIGNATIONS.

The following resignations were accepted with regret:—

Raymond Bush [*F.*],  
Charles Albert Battie [*L.*].

APPLICATIONS FOR TRANSFER TO RETIRED FELLOWSHIP.  
The following members were transferred to the Retired Fellowship:—

Osbourn Cluse Hills [*A.* 1896, *F.* 1905].  
Frank Peck [*A.* 1898, *F.* 1915].

## ELECTION OF STUDENTS R.I.B.A.

The following were elected as Students at the meeting of the Council held on 7 July 1930.

ABBOTT: DEREK NEWLANDS, "Milverton," Meads, Eastbourne.  
ARHLEY-SMITH: EWART TRIST, 5 Baxter Avenue, Southend-on-Sea.  
BELLEVY: ALBERT JOHN GUY, 91 Balham Park Road, London, S.W.12.  
BILLINGTON: PIRACY, 126 Trentham Road, Penkhull, Stoke-on-Trent.  
BOWDEN: GORDON EVERARD, 45 Comeragh Road, West Kensington, London, W.14.  
BRADFORD: WILLIAM NORRIS, 2 Ashton Road, Lancaster.  
BROWN: ALAN, Cumbriock House, Dalton, Carlisle.  
BROWN: COLIN, 37 Fountain Street, Nelson, Lancs.  
BROWN: LAWRENCE ARTHUR, 51 Sydney Street, Chelsea, London, S.W.3.  
BROWN: VINCENT, 46 Cheltenham Road, North Shore, Blackpool.  
BURLS: DAVID ROONEY, 44 Ramuz Drive, Westcliff-on-Sea.  
CARTER: FREDERICK HAROLD, 12 Bordesley Green Road, Small Heath, Birmingham.  
CHANTREY: GEORGE HERBERT BARTON, "Nairn," Longfield Road, Harpfield, Stoke-on-Trent.  
CHAPMAN: EDWIN BRECKON, 2 Lytham Road, Clarendon Park, Leicester.  
CHURCH: ALFRED GEORGE, 4 Chatham Road, Kingston-on-Thames, Surrey.  
CLAYTON: THOMAS HILTON, 10 Sandiway Place, Altrincham.  
COCKER: WALTER EDWARD GEORGE, 53 Masterman Road, East Ham, London, E.6.  
COOK: JAMES HENRY, 61 Brackenbury Road, Preston.  
CORTIS: HERBERT WILLIAM, "Inglenook," Uplands Road, Drayton, Cosham, Hants.  
DAVIES: ELIDIR LESLIE WISH, 471 Finchley Road, London, N.W.  
DAVIS: CHRISTOPHER HENRY ROSS, 50 Airedale Road, London, S.W.12.  
DELEHAY: JOHN EDWARD, 60 Millbrook Road, London, S.W.9.  
DISHIGH: GEORGE DYNON, 5 Telford Road, New Southgate, London, N.11.  
ELGEY: CHARLES, Springfield Crescent, Seaham Harbour.  
FAIRWEATHER: JAMES McDONALD, 20 Bristol Avenue, Liscaud, Wallasey, Cheshire.  
FARNSWORTH: JOHN EDWARD, "Holmhurst," Gateford Road, Workson, Norris.  
FLEMING: DOUGLAS EDGAR, 23 Cranbourne Gardens, London, N.W.11.  
FOX: CYRIL FREDERICK, "Charnwood," Kingsbury Avenue, St. Albans.  
GOFFEY: ALBERT EDWARD, 436 East Park Road, Leicester.  
GOODWORTH: CLIFFORD EDWARD, "Belfairs," Boleyn Gardens, W. Wickham, Kent.  
GOTT: ARTHUR FRANCIS EVELYN, 43 Mecklenburgh Square, London, W.C.1.  
GRANT: FERDUS COLLISWORTHLEY GREGOR, 1 Woodbury Park Mansions, Tunbridge Wells, Kent.

GRATRIX: HENRY HOLMWOOD, 92 Urnston Lane, Stratford, Manchester.  
HARDWICK: JOHN, Belmont Grove, Rawdon, Leeds, Yorks.  
HEY: JOHN AYRTON, 54 Barrowford Road, Colne, Lancs.  
HUDOV: GEORGE VERNON, 20 White's Avenue, Newbury Park, Ilford, Essex.  
HUNT: WILLIAM JOSEPH, 322 Cowley Mansions, Mortlake, London, S.W.14.  
IND: LESLIE CECIL, "Kedra," Bull Lane, Gerrards Cross, Bucks.  
ISRAEL: LAWRENCE, 4 Carlisle Road, Brondesbury Park, London, N.W.6.  
KESIP: REGINALD CECIL, 22 Queen's Road, Alton, Hants.  
KILNER: LAWRENCE, 74 Birkhouse Lane, Moldgreen, Huddersfield.  
KIRK: STANLEY FREDERICK, 9 Crystal Street, Hull.  
LANG: REGINALD BERNARD, 321 Dickenson Road, Longlight, Manchester.  
LAW: CHARLES, 1135 Middleton Road, Chadderton, near Oldham, Lancs.  
LAWTON: ERIC ARTHUR, 90 Laburnum Avenue, Garden Village, Hull.  
LIGHT: EDWARD JOSEPH GEORGE, 169 Green Lane, Nurbury, S.W.  
LIND: HARRY, 64 Station Road, Lochgelly, Fife.  
LINDY: KENNETH JOHN, "Carlee," Selborne Road, Sidcup, Kent.  
LITTLE: RICHARD, Sturton House, South Gosforth, Newcastle-upon-Tyne.  
LOWE: GEORGE CHARLES, 35 Dalberg Road, Brixton, London, S.W.2.  
MARSDEN: WILLIAM, "Lynwood," Woodland Avenue, Thornton, Blackpool.  
MASKELL: SIDNEY JAMES, "Lynwood," Crosby Road North, Waterloo, Liverpool.  
MELDON: AUSTIN PUGIN, 25 The Promenade, Egremont, Wallasey.  
MONCHIEFF: HARRY, 23 Guildhall Street, Folkestone.  
MUNRO: CHARLES, P. W. M. Hostel, Howard Street, Belfast, Ireland.  
NICKLIN: NORMAN CHARLES, "Lalique," Princes Avenue, Walsall.  
NORMINGTON: HERBERT AVERY, 60 Parkwood Street, Keighley, Yorks.  
PAGE: REGINALD JOHN, "Lancet," St. Mary's Road, Frinton-on-Sea.  
PEARCE: ARTHUR, 35 Vicarage Street, Nottingham.  
PRAT: JOHN THYOR WILLIAMS, 47 St. John's Road, Seven Kings, Essex.  
PREBS: FREDERICK WILLIAM, 12 Avenue Road, Southall, Middlesex.  
PILKINGTON: THOMAS, 196 St. Anne's Road, Blackpool.  
PRICE: PHILIP JOHN, 193 Station Road, Stechford, Birmingham.  
PRIESTMAN: HAROLD DENT, 34 Fountain Street, Hull.  
READ: BERYL JOY, 36 Bedford Square, London, W.C.1.  
READ: REX THORPE, 26 Oakdale Road, Streatham, London, S.W.16.  
REECE: NOEL LEES, 11 West Street, Stalybridge, Cheshire.  
REYNER: FREDERICK BARNARD, 74 Rutland Road, W. Bridgford, Nottingham.  
REYNISH: ROY LEWIS, 51 College Road, Maidstone, Kent.  
RIDDELL: JAMES RATTRAY, 4 Watson Street, Aberdeen.  
RIBBIDGE: HENRY JOSEPH, "Ivydene," The Bars, Guildford.  
ROBE: GEORGE, 25 Orange Hill Road, Heaton Park, near Manchester.  
ROSE: CHARLES ALEXANDER, Smithton, Culloden, near Inverness.  
ROSE: KENNETH, "Aingarth," Wood's Moor Lane, Davenport, Stockport.



RUNNICES: CYRIL GEORGE, 21 Ashling Road, Croydon.  
 SAMUEL: GODFREY HERBERT, 35 Porchester Terrace, London, W.2.

SENIOR: DENIS, 50 Smawthorne Lane, Castleford, Yorks.  
 SHERWIN: ALEXANDER, 27 Tradescant Road, London, S.W.8.  
 SIMME: ALFRED ETHEL HATTEN, "Hargate House," West Bromwich.

SMITH: JOSEPH EDWIN, "Wyntoyd," Rossitt Drive, Harrogate.

SPIVEY: CERRIC ARTHUR, "Dale Edge," Delamere Avenue, Whitefield, near Manchester.

STERNFELDT: SVEN MICHAEL BENVENUTO, "Svenstorp," Chorleywood, W., Herts.

STOTT: JAMES PETER, Starsfield Hall, Todmorden.

TEE: ROBERT GEORGE, 32 Muswell Avenue, Muswell Hill, London, N.10.

THORPE: JACK LESTER, 66 Bankfield Road, Moldgreen, Huddersfield.

TURNER: FREDERICK JOHN WILLIAM, 34 Stanbridge Road, Putney, London, S.W.15.

VARDY: JOHN DREW, 40 Cambridge Avenue, Leith, Edinburgh.

VAUX: EDWARD HUGH, 18 Manson Place, London, S.W.7.

WATKINSON: PHILIP GEORGE, 16 The Ridgeway, Finchley, London, N.3.

WIDATLEY: NORMAN, 18 Hillside Road, Hillside, Southport.

WILKINSON: AUSTIN, 2 Peart Street, Burnley.

WILLIAMS: IORWERTH MALDWIN, 87 Russell Street, Moss-side, Manchester.

The following were elected as Students at the meeting of the Council held on 21 July 1930:

BRIDGE: OLIVE GERTRUDE VERNON, 29 Antrim Road, Hampstead, London, N.W.3.

BURTON: JOHN WALCOT, 8a Fordwych Road, London, N.W.2.

COMBER: EILEEN ELEANOR, 43 Frances Road, Windsor.

DALLAS: HORMAZDIAR NANSIHWAN, Kathoke Lodge, 116 Main Road, Dadar, Bombay.

D'AVOINE: PIERRE AVICENNA, 3 Morland Road, Byculla, Bombay, India.

REITH: WILLIAM JAMES, 6 Rosebery Street, Aberdeen.

TAYLOR: WILLIAM ROBERT HECTOR, Station Cottage, Glassel, Aberdeenshire.

UBEN: REGINALD HAROLD, c/o The Architectural Association, 34 Bedford Square, London, W.C.1.

WALKER: WILLIAM CAIR, "Elsinore," 261 Victoria Road, Aberdeen.

WORSNIP: JOHN VICTOR, 55, Liscard Road, Wallasey.

### R.I.B.A. PROBATIONERS.

During the month of June, 1930, the following were registered as Probationers of the Royal Institute:—

ABEL: FRANK, The Promenade, Rhos-on-Sea, N. Wales.

ABREY: REGINALD JOHN, 99, Firs Lane, Winchmore Hill, N.21.

ATEKINSON: ALFRED JOHN, 8, Avenue Mansions, Elms Avenue, Eastbourne, Sussex.

BELL: BRIAN McEWEN, "Corcoran," Radlett, Herts.

BOYTERELL: GUY PERY DUMVILLE, Combe Edge, Oakhillway, Hampstead, N.W.3.

BRANSON: NORMAN RICHARD, 270, Landonderry Road, Smethwick, near Birmingham.

BREITON: COURTNEY, The Milestone, 263, Hills Road, Cambridge.

BROWN: ALAN GEORGE, "Rose Hill," Wellingborough, Northants.

BURLES: DAVID RODNEY, 44, Rainuz Drive, Westcliff-on-Sea.

CALDWELL: JAMES EDWIN LEES, 777, Lisburn Road, Balmoral, Belfast, Ireland.

CHAPPE: JOHN LONEL, 3, Lenden Road, Westbury Park, Bristol.

CHALLIS: HENRY EMANUEL, 26, Ormonde Gate, Chelsea, S.W.3.

CHANCE: THOMAS ALEC, High Street, Stanton Hill, near Mansfield, Notts.

CUMMINGS: KENNETH, 6, Furness Park Road, Barrow-in-Furness.

DENISON: HERBERT GEORGE, 26, Weight Road, Chelmsford, Essex.

EZRA: RICHARD SION, Tar Mohamed Building, Matlibai Street, Jacob Circle, Bombay, India.

GEORGE: LESLIE THOMAS, 123, Albany Street, Regent's Park, N.W.1.

GOODSHAM: SYDNEY CHARLES, 27, Queen Anne's Gardens, Bush Hill Park, Enfield, N.

GRAVELL: ARTHUR CLARE, "Bramblehurst," Hare Lane, Esher, Surrey.

HATTERLEY: ROY WILLIAM, 55, Bedford Road, Harrow, Middlesex.

HAWKES: HORACE STANLEY, 37A, South Lambeth Road, Vauxhall, S.W.8.

HEPPLE: EDMUND STOREY, 11, Avondale Terrace, Chester-le-Street.

HOUSTON: ROBERT, 149, Morningside Road, Edinburgh.

IRONSIDE: WILLIAM DALTON, 30, Gladstone Place, Aberdeen.

JERMAN: CHARLES JAMES, 63, Boundary Road, East Ham, E.6.

LEARY: ARTHUR DOUGLAS, 9, Carrington Avenue, Strathfield, Sydney, N.S.W., Australia.

LOYD: JOHN CLUDOW, "Mill Hill," Otham Lane, Bearsted, near Maidstone, Kent.

MARVAN: FRANCIS HAROLD, "Beechcroft," Harborne Road, Warley, Worcestershire.

MAYER: WILLIAM EDGAR, "Gwynfryn," Llanellian, Colwyn Bay.

MOIR: BERKELEY LOWNDES, Overton House, Congleton.

NEGUS: PERCY GEORGE, 19, Hemingford Road, Barnsbury, N.1.

NICHOLLS: ALFRED, 41, Market Street, Heckmondwike.

OBE: WILLIAM STUBART, Iva-Craig, Craigavad, Co. Down.

OWEN: WALTER GLYN, "Glyngarth," Stockton Brook, Stoke-on-Trent, Staffs.

PETERS: BERNARD, 61, Lorne Street, Fairfield, Liverpool.

REID: ALEXANDER BUDGE, c/o Manson, 12, Broomhill Avenue, Partick, Glasgow, W.1.

RIBDON: FRANK HERIOT, 133, Shepherdess Walk, City Road, London, N.

SANDY: BASIL GUINAN, 55, Albany Road, Chorlton-cum-Hardy, Lancs.

SCHOLEY: EDWARD (JUNIOR), 162, Victoria Avenue, Hull.

SHANNON: JAMES JOHNSTONE, 19, Galabank Avenue, Annan, Dumfries.

SHRAPLIN: WALTER CLIFFORD, 82, North Road, Southend-on-Sea.

SKINGSLEY: ERIC STANLEY, 162, Hagdon Road, New Malden.

SOLEN: ARMAND WILMSHURST, 93, City Road, Edgbaston.

STENLEY: VINCENTE GUSTAVE, 3, Hawthorn Road West, Gosforth, Newcastle-upon-Tyne.

SWADNE: ANTHONY WELLS, 67, Grosvenor Road, Broadstairs.

TIPPER: KENNETH BAYLIFF, Beechwood, Llannerch Road West, Rhos-on-Sea, N. Wales.

TRIBE: ANTHONY CHARLES, Architectural Association, 34-35, Bedford Square, W.C.1.

VOWELS: CYRIL EDGAR, Sutherland House, Westbourne Grove, Westcliff-on-Sea.

WHITAKER: ROBERT, 27, Hind Street, Burnley.



### R.I.B.A. INTERMEDIATE EXAMINATION, NOVEMBER 1930. ALTERATION IN DATE.

The R.I.B.A. Intermediate Examination to be held in November 1930 will take place on the following dates: 21, 22, 24, 25 and 27 November, instead of from 7 to 13 November as previously announced.

The closing date for the receipt of applications for admission to the Examination is 7 October.

### R.I.B.A. FINAL AND SPECIAL EXAMINATIONS. TOWN PLANNING AS AN ALTERNATIVE TO IRON AND STEEL CONSTRUCTION AND REINFORCED CONCRETE OR HYGIENE.

The Council R.I.B.A., on the recommendation of the Board of Architectural Education, have decided to discontinue from 31 December 1930 the acceptance of a paper on the Outline of the History and Practice of Town Planning in the R.I.B.A. Final and Special Examinations as an alternative to either Iron and Steel Construction and Reinforced Concrete or Hygiene.

### R.I.B.A. STATUTORY EXAMINATION FOR THE OFFICE OF DISTRICT SURVEYOR AND THE EXAMINATION FOR THE OFFICE OF BUILDING SURVEYOR.

The R.I.B.A. Statutory Examination for the office of District Surveyor under the London Building Acts, and the Examination for the office of Building Surveyor under Local Authorities, will be held at the R.I.B.A., London, on 15, 16 and 17 October 1930.

The closing date for receiving applications for admission to the examinations, accompanied by the fee of £3 3s., is 24 September.

Full particulars of the examinations and application forms can be obtained from the Secretary R.I.B.A.

### BYE-LAWS OF THE R.I.B.A.

We print below a copy of a notification that has just been received from the Privy Council approving the amendments to the Bye-laws of the R.I.B.A. that were passed by the General Body last year.

AT THE COUNCIL CHAMBER, WHITEHALL,

The 2nd day of July 1930.

BY THE LORDS OF HIS MAJESTY'S MOST  
HONOURABLE PRIVY COUNCIL.

PRESENT:

EARL OF OSBLOW.

LORD SOUTHBOROUGH.

LORD WARRINGTON OF CLYFFE.

Whereas the Royal Institute of British Architects has, in exercise of the powers in that behalf conferred on it by the Supplemental Charter dated the 28th day of March, 1887, of the said Institute, by Resolution made and adopted certain amendments of the existing bye-laws of the said Institute:

And whereas by Article 32 of the said Supplemental Charter it is provided that no Bye-laws shall be of any force or validity whatever unless and until they have been approved by the Lords of the Council:

And whereas the said amendments of Bye-laws have been submitted to the Lords of the Council for allowance:

Now, therefore, Their Lordships, having taken the said amendments of Bye-laws as well as the Counter-Petitions of the Incorporated Association of Architects and Surveyors and the Institute of Builders into consideration and having heard counsel thereon are pleased to allow the said amendments of Bye-laws as set forth in the Schedule to this Order. M. P. A. HANKEY.

### THE NEW HEADQUARTERS OF THE R.I.B.A.

A Jury of five Assessors has been appointed to judge the designs which will be submitted in the Competition for the new Headquarters of the R.I.B.A. in Portland Place. The appointment was made by the Council of the R.I.B.A., who accepted, by a unanimous vote, the list prepared and recommended by the President, Sir Banister Fletcher. The Assessors, who have all accepted the invitation to serve, are: Sir G. Gilbert Scott, R.A.; Dr. Percy S. Worthington; Mr. H. V. Lanchester; Mr. Charles Holden; Mr. Robert Atkinson.

### PRESIDENTIAL PORTRAIT.

Sir John Lavery, R.A., has kindly consented to paint the presidential portrait of Sir Banister Fletcher, which will be presented to the Royal Institute of British Architects in 1931.

## Notices

### THE R.I.B.A. KALENDAR 1930-31.

The attention of members is drawn to the leaflet enclosed with the last issue of the JOURNAL. Changes of address, etc., for inclusion in the forthcoming issue of the Kalendar should be notified to the Secretary R.I.B.A. before Saturday, 6 September.

### MEMBERSHIP OF THE R.I.B.A.

#### THE LICENTIATE CLASS.

The revised Bye-laws of the Royal Institute of British Architects have received the approval of His Majesty's Privy Council, and applications may now be sent in for membership of the R.I.B.A. in the Licentiate Class. Full information and the necessary forms will be sent on application being made to the Secretary R.I.B.A., 9 Conduit Street, London, W.1.

### ASSOCIATES AND THE FELLOWSHIP.

Associates who are eligible and desirous of transferring to the Fellowship are reminded that if they wish to take advantage of the election to take place on 1 December 1930, they should send the necessary nomination forms to the Secretary R.I.B.A. not later than Saturday 27 September 1930.

### LICENTIATES AND THE FELLOWSHIP.

The attention of Licentiates is called to the provisions of Section IV, Clause 4 (b) and (iii) of the Supplemental Charter of 1925. Licentiates who are eligible and desirous of transferring to the Fellowship can obtain full



particulars on application to the Secretary R.I.B.A., stating the clause under which they propose to apply for nomination.

#### OVERSEAS APPOINTMENTS.

Members contemplating applying for appointments overseas are recommended to communicate with the Secretary R.I.B.A., who will supply them with any available information respecting conditions of employment, cost of living, climatic conditions, etc.

WILLIAM H. HAMLYN,

Hon. Sec. R.I.B.A., Salaried Members' Committee.

#### NEW BUILDING MATERIALS AND PREPARATIONS.

The Science Standing Committee wish to draw attention to the fact that information in the records of the Building Research Station, Garston, Watford, is freely available to any member of the architectural profession, and suggest that architects would be well advised, when considering the use of new materials and preparations of which they have had no previous experience, to apply to the Director for any information he can impart regarding their properties and application.

## Competitions

#### BANGOR (CO. DOWN) LAY-OUT OF SEA-FRONT.

The Bangor (Co. Down) Borough Council invite architects and town planners to submit, in open competition, designs for the lay-out of the sea-front in the Borough.

Assessor: Professor Patrick Abercrombie, M.A. [F].  
Premiums: £150 and £50.

Last day for receiving designs: 1 September 1930.

Conditions of the competition may be obtained on application to Mr. J. Milliken, Town Clerk, Borough Council Offices, Bangor, Co. Down. Deposit £1 1s.

#### CARLISLE: ENGLISH STREET IMPROVEMENT.

The Corporation of the City of Carlisle invite architects to submit, in open competition, designs for the façade to English Street and the Victoria Viaduct, suitable for Shops and Business Premises.

Assessor: Mr. Francis Jones [F].

Premiums: £300, £200 and £100.

Last day for receiving designs: 30 August 1930.

Conditions of the competition may be obtained on application to Mr. Percy Dalton, A.M.Inst.C.E. [A.], City Engineer, 18 Fisher Street, Carlisle. Deposit £1 1s.

#### CHULMLEIGH, DEVON: PROPOSED MINISTER'S HOUSE.

The Competitions Committee desire to call the attention of members to the fact that the conditions of the above competition are not in accordance with the regulations of the R.I.B.A. The Competitions Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime members should not take part in the competition.

#### GUILDFORD: PROPOSED CATHEDRAL.

The Guildford Cathedral Committee invite architects who have been engaged in the building of cathedrals or churches to submit drawings and illustrations of their works; or a design for a cathedral. Not more than three sets of drawings may be sent, all to be contained in one large portfolio. Architects who have not been engaged in the actual execution of such works, but have studied and designed ecclesiastical buildings, may submit similar portfolios of drawings or designs.

The Committee, with the assistance of Mr. Walter Tupper, A.R.A., F.S.A. [F.], will select a limited number of architects for the Final Competition, who will each receive Five Hundred guineas, whether the design is accepted or not, but the Committee will be free to accept or reject any or all of such designs.

Portfolios must be sent in on or before 30 November 1930, addressed to The Venerable the Archdeacon of Surrey, The Diocesan Office, Lloyds Bank Chambers, Guildford.

#### LIVERPOOL: DEVELOPMENT OF SITE.

The General Building Syndicate, Ltd., invite architects to submit, in open competition, schemes for the development of a site at Liverpool fronting St. John's Lane, Queen Square and Roe Street.

Assessor: Mr. Duncan A. Campbell [F.].

Premiums: £250, £100 and £50.

Last day for receiving designs: 30 October 1930.

Conditions of the competition may be obtained on application to The Secretary, General Building Syndicate, Ltd., 36, St. Martin's Lane, London, W.C.2. Deposit £2 2s.

#### MENAI BRIDGE: PROPOSED PAVILION.

The Competitions Committee desire to call the attention of members to the fact that the conditions of the above competition are not in accordance with the regulations of the R.I.B.A. The Competitions Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime members should not take part in the competition.

#### RAMSEY, ISLE OF MAN: GRAMMAR SCHOOL.

The Education Authority of the Isle of Man invite architects to submit, in open competition, designs for a new Grammar School to be erected at Ramsey.

Assessor: Mr. T. Taliesin Rees [F.].

Premiums: £250, £150 and £75.

Last day for receiving designs: 30 September 1930.

Conditions of the competition may be obtained on application (before 1 July 1930) to Mr. T. R. Lewin, Clerk to the Authority, Education Office, Strand Street, Douglas, I.O.M. Deposit £1 1s.

#### WEST HUMBERSTONE: LIBRARY.

The Leicester Corporation propose to invite local architects to submit, in competition, designs for a Library, to be erected at West Humberstone.

Assessor: Mr. Hugh Gold [F.].

Premiums: £75, £50 and £25.

[Conditions are not yet available.]



## Members' Column

### PARTNERSHIP.

A HALF share partnership is offered to a young Associate capable of doing work through in a growing practice in Devonshire. Premium.—Box 1,000, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

### PARTNERSHIPS WANTED.

ASSOCIATE R.I.B.A., age 34, having extensive London general experience, partly in private practice, desires position of responsibility as Senior Assistant, with view to partnership. London or Home Counties. Capital available.—Reply Box 2897, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

A.R.I.B.A. desires to purchase a partnership in a well-established provincial practice, preferably in the south of England.—Box 2270, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

### APPOINTMENT VACANT.

A FULLY qualified assistant aged 30-35, unmarried, wanted for an architect's office in India, 3 years' engagement with prospect of Partnership ultimately, if satisfactory. Salary Rs. 800/-, 900/- and 1,000/- per mensem. First class passage paid with half pay on voyage. Principal may be interviewed in London.—Apply with copies of recent testimonials to Box 2270, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

### PARTNERSHIP REQUIRED.

A.R.I.B.A. having small practice wishes to meet architect with established practice with view to working partnership.—Reply Box 2524, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

### TEMPORARY ASSISTANCE.

MEMBER (age 41) with small London practice in W. C. District is able at any time to help Architects requiring assistance.—Reply Box 2524, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

### MR. ALEXANDER N. PATERSON, A.R.S.A. (F.).

The firm of A. N. Paterson and Stoddart, lately of 219 St. Vincent Street, Glasgow, having been dissolved through the death of Mr. Stoddart, Mr. Paterson has resumed his personal practice at Rosdhu Drive, Helensburgh, while continuing his very connection, in association with Messrs. Watson, Salmon and Gray, (F.F.) at their office, 222 West George Street, Glasgow, C.2. Telephone numbers: Helensburgh, 187; Glasgow, Douglas, 2546.

### CHANGE OF ADDRESS.

ALISTER G. MACDONALD, A.R.I.B.A., has moved his offices from 6, Old Queen Street, to No. 13 Queen Anne's Gate, Westminster, S.W.1. The telephone numbers are Victoria 2321, Victoria 8812 and Welbeck 2502.

MR. S. H. LOWERY, A.R.I.B.A., (Deputy County Architect, Kent), has changed his address to The New Bothy, Mote Park, Maidstone, Kent. (Telephone: 3515, Maidstone).

MR. STANLEY HUNT, A.R.I.B.A., has removed his offices from 70, Finsbury Pavement, E.C.2, to Evelyn House, 101 Finsbury Pavement, E.C.2. Telephone: Metropolitan 2364.

MR. G. E. MCLEAVEY, A.R.I.B.A., has changed his address to 10 Chisbrook Road, Grove Park, S.E.12. Phone: Lee Green 2617, and would be pleased to receive trade catalogues for index and other purposes.

### OFFICES TO LET.

ARCHITECTS' offices adjoining Institute. No. 8 Conduit Street, two very well lit front rooms, one large. Long lease. Rent moderate.—Apply Box 1829, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1, or telephone: Central 2304 or 2305.

ARCHITECTS' offices, Essex Street, 4th floor, lift. Two, very light large rooms overlooking Fountain Court, Temple. Central heating. Moderate rent.—Apply Box 1970, c/o The Secretary R.I.B.A., 9 Conduit Street, W.1, or telephone: Central 2304 or 2305.

### OFFICE ACCOMMODATION.

MEMBERS of the Institute wishes to meet another member who will take part share of his office at Lincoln's Inn Fields, W.C. Good light, mutual assistance might be arranged.—Apply Box 2579, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

Accommodation offered to members' office, including small room, Charing Cross. Phone, messengers, etc.—Apply Box 2670, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

### MR. NORMAN KEE.

MR. NORMAN KEE, A.R.I.B.A., has been appointed Head of the Building Department at Woolwich Polytechnic (Evening), and would be pleased to receive from manufacturers, samples, models, data, etc., relating to modern building materials and specialist methods of construction.

### TRADE CATALOGUES.

L. M. CHITALE, A.R.I.B.A., A.M.T.P.L., Assistant Consulting Architect to Madras Government, P. W. D. Chitpalk, Madras, would be pleased to receive trade catalogues.

### FOR SALE.

BOUND volumes of R.I.B.A. JOURNAL, 1894 to 1905. Offers should be addressed to Box 2270, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

An architect's widow desires to dispose of surveying instruments, dumpy level, tripod, staff, etc.—89, Templars Avenue, Golders Green, N.W.11.

## ARCHITECTS' BENEVOLENT SOCIETY (Insurance Department).

### HOUSE PURCHASE SCHEME (for property in Great Britain only).

The Society is able, through the services of a leading Assurance Office, to assist an Architect (or his client) in securing the capital for the purchase of a house for his own occupation, on the following terms:—

#### AMOUNT OF LOAN.

Property value exceeding £666, but not exceeding £2,500, 75 per cent. of the value.

Property value exceeding £2,500, but not exceeding £4,500, 66½ per cent. of the value.

The value of the property is that certified by the Surveyor employed by the Office.

#### RATE OF INTEREST.

In respect of loans not exceeding £2,000 5½ per cent. gross.  
" " in excess of " 5½ " "

#### REPAYMENT.

By means of an Endowment Assurance which discharges the loan at the end of 15 or 20 years, or at the earlier death of the borrower.

#### SPECIAL CONCESSION TO ARCHITECTS.

In the case of houses in course of erection, it has been arranged that, provided the Plan and Specification have been approved by the Surveyor acting for the Office, and the amount of the loan agreed upon, and subject to the house being completed in accordance therewith, ONE HALF of the loan will be advanced on a certificate from the Office's Surveyor that the walls of the house are erected and the roof on and covered in.

NOTE.—In 1928, over £20,000 was loaned to architects under this scheme, and as a result over £100 was handed to the Benevolent Fund.

If a quotation is required, kindly send details of your age next birthday, approximate value of house and its exact situation, to the Secretary Architects' Benevolent Society, 9 Conduit Street, London, W.

Members sending remittances by postal order for subscriptions or Institute publications are warned of the necessity of complying with Post Office Regulations with regard to this method of payment. Postal orders should be made payable to the Secretary R.I.B.A., and crossed.

It is desired to point out that the opinions of writers of articles and letters which appear in the R.I.B.A. JOURNAL must be taken as the individual opinions of their authors and not as representative expression of the Institute.

### R.I.B.A. JOURNAL.

DATES OF PUBLICATION.—1930.—20 September; 18 October.



# Journal of the Royal Institute of British Architects

THIRD SERIES

VOL. XXXVII. No. 19

30 SEPTEMBER 1930

## Contents for 20 September 1930

	Page
LA PLACE DE LOUIS XVI ET LA SALLE D'OPÉRA. From an Engraving in Sir John Simpson's Collection ..	Frontispiece
FRANÇOIS-JOSEPH BELANGER. By Sir John W. Simpson, K.B.E., Past-President ..	695
REVIEWS:	
T. K. AND H. V. HUBBARD'S "OUR CITIES, TO-DAY AND TO-MORROW." By Dr. Raymond Unwin [E.] ..	705
PROFESSOR TANCRED BORENIUS' "FLORENTINE FRESCOES." By H. C. Hughes, M.A.Cantab. [A.] ..	706
BULLETIN OF THE SOCIETY FOR THE RESEARCH IN CHINESE ARCHITECTURE. No. 1. By Arnold Silcock [F.] ..	706
THE LIBRARY ..	707
NOTES BY MEMBERS OF THE SCIENCE STANDING COMMITTEE:	
THE INVESTIGATION OF ATMOSPHERIC POLLUTION. By Percy J. Waldran, F.S.I. ..	707
CORRESPONDENCE:	
ENGLISH CHURCH ART. By C. F. A. Voysey [F.] ..	708
THE PUBLIC CONTROL OF BUILDING. By A. N. C. Shelley, Ministry of Health ..	708
DAMAGE TO PLUMBING WORK BY FROST. By J. W. B. Harding [L.] ..	708
STONE DECAY IN SANDSTONE BUILDINGS. By Professor A. P. Laurie, M.A.Cantab. [Hon. A.] ..	709
THE SUNLIGHT LEAGUE. By Francis Hooper [F.] ..	709
OBITUARY:	
SIR ASTON WEBB. By E. Guy Dawber, A.R.A., F.S.A., P.P.R.I.B.A. ..	710
JAMES BOW DUNN, R.S.A. [F.]. By Sir George Washington Browne, P.R.S.A., LL.D. [F.] ..	711
WILLIAM GILLBER SCOTT [F.]. By J. Douglas Scott [A.] ..	712
THE LONDON BUILDING ACT ..	713
HEIGHT OF LONDON BUILDINGS: REPORT OF CONFERENCE ..	713
STEEL STRUCTURES RESEARCH COMMITTEE ..	714
INDEX OF ARCHITECTURAL RECORDS ..	714
TOWN PLANNING INSTITUTE ..	714
ALLIED SOCIETIES:	
EAST AFRICA INSTITUTE OF ARCHITECTS ..	715
MANCHESTER SOCIETY OF ARCHITECTS ..	715
SINGAPORE SOCIETY OF ARCHITECTS ..	715
INSTITUTE OF SOUTHERN RHODESIAN ARCHITECTS ..	716
NOTES FROM MINUTES OF COUNCIL ..	716
R.I.B.A. PROBATIONERS ..	717
EXAMINATIONS ..	717
NOTICES ..	718
COMPETITIONS ..	719
MEMBERS' COLUMN ..	720
A.B.S. SCHEME OF INSURANCE ..	720













LA PLACE DE L'ISLE AUX  
PROFESSEURS

par M. de la Harpe

*de la Harpe*  
Paris 1789



ET LA MAISON D'OPERA

ou l'Isle des Professeurs

*Comte de la Harpe*  
Paris 1789

FROM SIR JOHN SIMPSON'S COLLECTION



SAUNTE-JAMES. *Le Grand Rocher*

## François-Joseph Belanger\* (*à l'ombre de Sophie Arnould*)

BY SIR JOHN W. SIMPSON, K.B.E., PAST-PRESIDENT

OF architecture there has been, and is, writing enough and more than enough; of the architects to whom it is due there is surprisingly little. Their biographies are rare, and those for the most part confined to dull recitals of the works they carried out, with half hints only at the passions which stirred them, the happenings and the consequences which ordered the fortune of their life's adventure. Yet, the lives of men who have made great buildings do not want for interest. With the exception perhaps of the portrait-painter, no artist is brought into so close a contact with the men and women of his day, or sees so much of intimate history, as the designer of buildings. M. Jean Stern has, in his study of Belanger, left a model for future biographers of architects. His two volumes are packed, not only with excellent technical descriptions and records of the architect's many buildings, but with documentary details about the lives of him and those he knew

which are a serious contribution to the history of the time he lived in.

And what a time that was!

Belanger began his career in the brilliant, extravagant, early years of Louis XVI. He saw that monarch and his queen crowned; and saw them beheaded. He was told off, as "commissaire civil," to visit their unhappy little son in the tower of the Temple; made a drawing of the child's head (from which Beaumont modelled a bust); saw there also the girl princess, Madame Royale.† Though he was always "suspect," on account of his former connections with royalty and the "aristocrats," he had the courage to remain in Paris and to do what he conceived to be his duty during the Revolution. Imprisoned and sick, his life was only saved by the fall of Robespierre on the 10th Thermidor. Having lived through the epic periods of Napoleon's rise, his apogee, his fall, and the Hundred days, he survived, though with much suffering and the loss of his fortune, to see the Restoration of the Monarchy and be reinstated in his Court appointments.

† Who lived to become Duchesse d'Angoulême.

\* *François-Joseph Belanger, Architecte des Menus-Plaisirs, Premier Architecte du Comte d'Artois.* Par Jean Stern. 2 vols. Large 8vo. Paris, Librairie-Plon, 1930. (With 61 photographic plates.) (*à l'ombre de Sophie Arnould*)



After leaving the school of the Académie Royale d'Architecture, where he had studied under the Academicians David-Leroy and Contant d'Ivry, he came to the notice of Lord Shelburne and went with him to Bowood, where he worked with "Capability Brown" on laying out and ornamenting the gardens. Making good use of his time, he brought back with him, in 1767, a well filled sketch-book (still preserved at the Ecole des Beaux-Arts), together with copious notes on the English use of deal framings, and on iron construction. Lord Shelburne was well pleased with the young Frenchman and commissioned him, some twelve years later, to prepare designs for completing the great gallery of Lansdowne House, which the Adam brothers had left in carcase. Three of the studies for this work may be seen in the Soane Museum, but the finely rendered "longitudinal section" was secured by M. Stern himself at the Gardner sale in 1923, and is now reproduced in his book.\*

On his return from England he was appointed to the "Menus-Plaisirs" (the King's Office of Works), where almost his first duty was to design a cabinet for the jewels which Marie-Antoinette would receive on her marriage. Presently, being promoted, he was appointed to assist Gabriel in completing his beautiful operatic theatre at Versailles. Singers and actors were then servants of the King, controlled by the four "First Gentlemen of the Chamber" and the "Menus" department had charge of the opera and comedy buildings in which they played. It was thus, in the course of his duties, that Belanger met with Mlle Arnould of the opera, as celebrated for her wit as for her lovely voice, whom Garrick declared to be the greatest of all the French artists.

They became devoted lovers.

"It would seem," says Edmond de Goncourt, "that the Creator can fashion a hero with less trouble than a courtesan. The Muse of History, during six thousand years, has marked for fame whole armies of high captains, kings, and sages. Yet, of the sisterhood vowed to Venus and Fortuna she scarce can count ten famous names. So few they are—spoiled princesses of the world's love-story—so rare, their infinite, immortal, charm."

Among these lovely phantoms—the scandal of their age while living, a smiling memory when they

had passed away—is Sophie Arnould, whose name will always be entwined with that of Belanger the architect, as his with hers. Neither was faithful to the other; a narrow constancy was not exacted in their day. But, from their passion sprang the sincere and tender friendship which ended only with her death.

His first important work came to Belanger through her influence with M. de Lauraguais-Brancas, who employed him to design a "folie" in the grounds of the hotel de Brancas. These "folies," of which so many were built before the Revolution, were the "petites maisons" of the Regency period under a new name; small houses where the owner could entertain, in freedom, guests who were not always within the circle of those admitted to his own residence. They were often gems of design, on whose architecture, decorations, and setting, were spent fabulous sums.

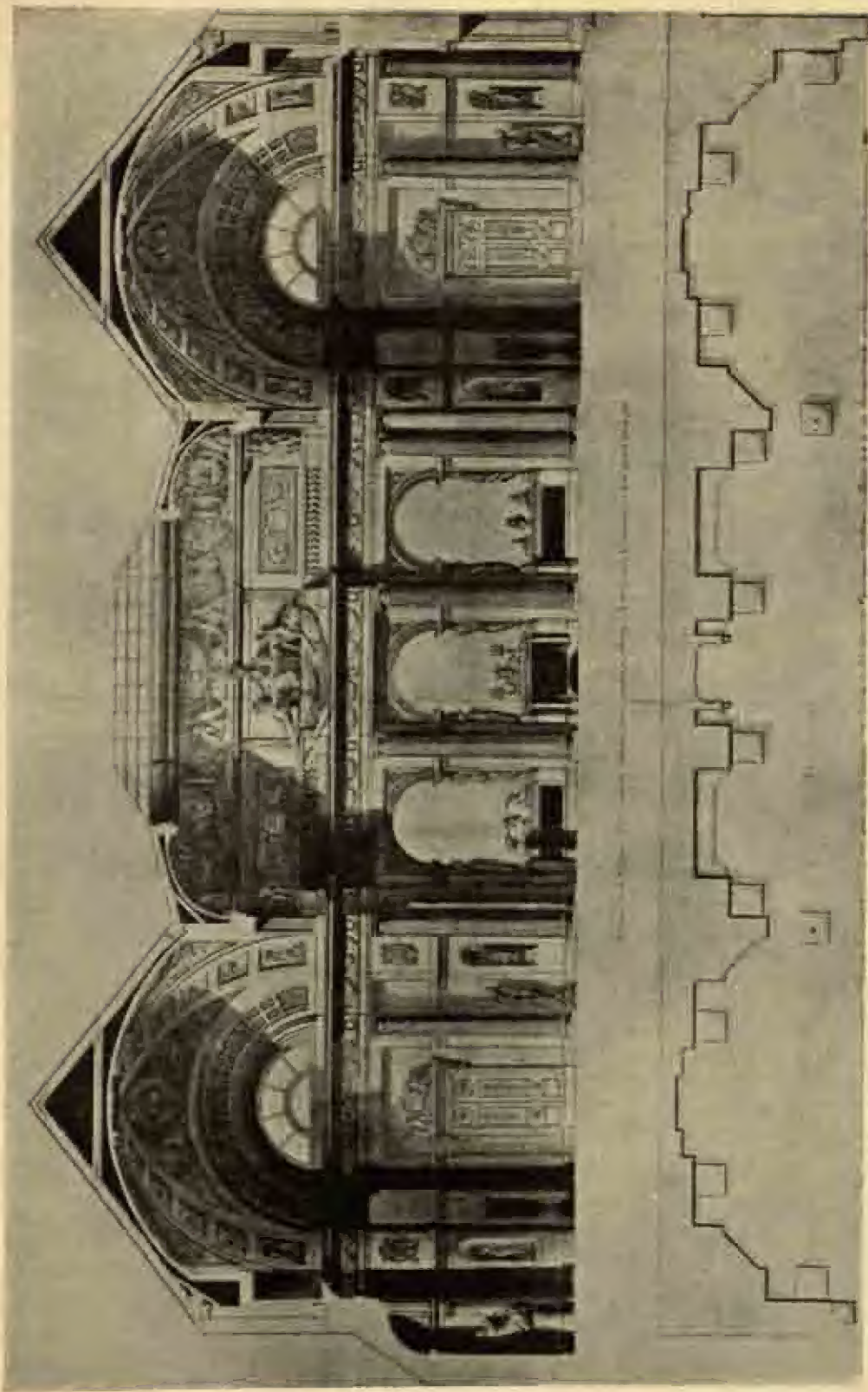
Belanger took up the ideas of de Lauraguais with enthusiasm, while curbing his client's inclination to eccentricity. His studies of Hellenic art under Leroy had turned his mind towards the classic sources of the Renaissance, and he now sent to Rome for Lhuillier, a sculptor who had been working there under Clérisséau. Lhuillier brought with him a precious collection of models and studies, together with a book of seventy-one folio plates newly published at Rome by signor Giovanni Battista Piranesi! This book came as a revelation to Belanger. In collaboration with Lhuillier, who had studied the decorations of Pompeii and Herculaneum, he produced work which anticipated that of the Directory and First Empire periods. Reverting to antique forms, but with a quite individual reading of them, he revived those principles of symmetry and simplicity which were to form a new national ideal in architecture.

De Lauraguais was delighted, and said so. Belanger soon became, by reason of his own ability—he was an indefatigable worker, a beautiful and rapid draughtsman—and his dear Sophie's backing, the favourite architect of the aristocracy. This, too, at a time when building was a modish form of rivalry among them. The prodigal prince de Ligne employed him to remodel his château and gardens at Belœil,† where the wood-work for the salon alone cost 40,000 francs.

\* The greater part of Belanger's drawings and designs are preserved in Paris at the Bibliothèque Nationale and the Archives Nationales.

† About 50 km. south of Brussels.





LANSDOWNE HOUSE. Longitudinal Section of the Great Gallery

From the Collection of M. Jean Zera



Money, like silver in the days of Solomon, was then nothing accounted of, though not always forthcoming to pay the artists and the wonderful craftsmen they inspired, Clodion, Gouthière, Lhuillier, and their fellows. Some, indeed, after spending their life and their substance in producing lovely works, died at last in poverty.

In 1775 Belanger became chief of the Menus-Plaisirs, and in this capacity designed the coach of State for the King's coronation. He prepared and fitted up the cathedral at Reims, attended the ceremony, and made three fine drawings in black and white during its progress. Two years later, he succeeded Galland as chief architect to the King's brother, M. le Comte d'Artois (afterwards Charles X). This appointment was no sinecure, for d'Artois was an indefatigable builder. Belanger prepared plans for rebuilding the Château-neuf at Saint-Germain, which had fallen into ruin during the two previous reigns. Unfortunately, this vast project was stayed for want of funds, and went no further than the preparatory demolition of the château built by Henri IV. He added three new rooms to Maisons, and carried out works at the Palais du Temple, the Faubourg Saint-Honoré, Vincennes, Versailles, and many other of the d'Artois properties. Most of these have now disappeared.

One, however, which still exists, is memorable as an example, not only of Belanger's delicate yet sober fancy, but also of the state of public affairs at the time it was built. D'Artois, who had acquired a small estate in the Bois de Boulogne known as "Bagatelle," on which stood a small tumble-down house, suddenly decided to remodel it as a "folie." Having wagered his sister-in-law, queen Marie-Antoinette, that he would have a fairy palace ready to receive her on her return from a visit to Fontainebleau, he called Belanger to his aid. Within forty-eight hours the architect had made his drawings, and sixty-four days later (29 November 1777) the building was finished.

This part of the story has been held, by impatient clients, to reflect on the more deliberate procedure of modern architects. They, it is fair to remember, seldom have such clients as d'Artois, who, as colonel of the "maréchaussée"—the mounted police of the time—ordered his men to patrol the main roads and divert all stone, timber, and other building material coming into Paris, to the works at Bagatelle. The lawful

owners were to be paid "on a valuation." Whether they ever received anything is not very clear, but the prince, though prodigal, was not wont to waste his money in paying debts.

Belanger had estimated the cost of Bagatelle at 600,000 francs. Architects have a poor reputation for accuracy in such calculations, and the contractors' accounts in this case, which came to 1,200,000 francs, do nothing to mend it. Moreover, we find work to the buildings and gardens still in hand for another nine years!\* D'Artois does not seem to have complained of the discrepancy, possibly for the reason above hinted at. But Belanger had given him a building perfect of its kind, which was, and still is, admired by all who appreciate harmonious proportion and daintily ornate decoration.

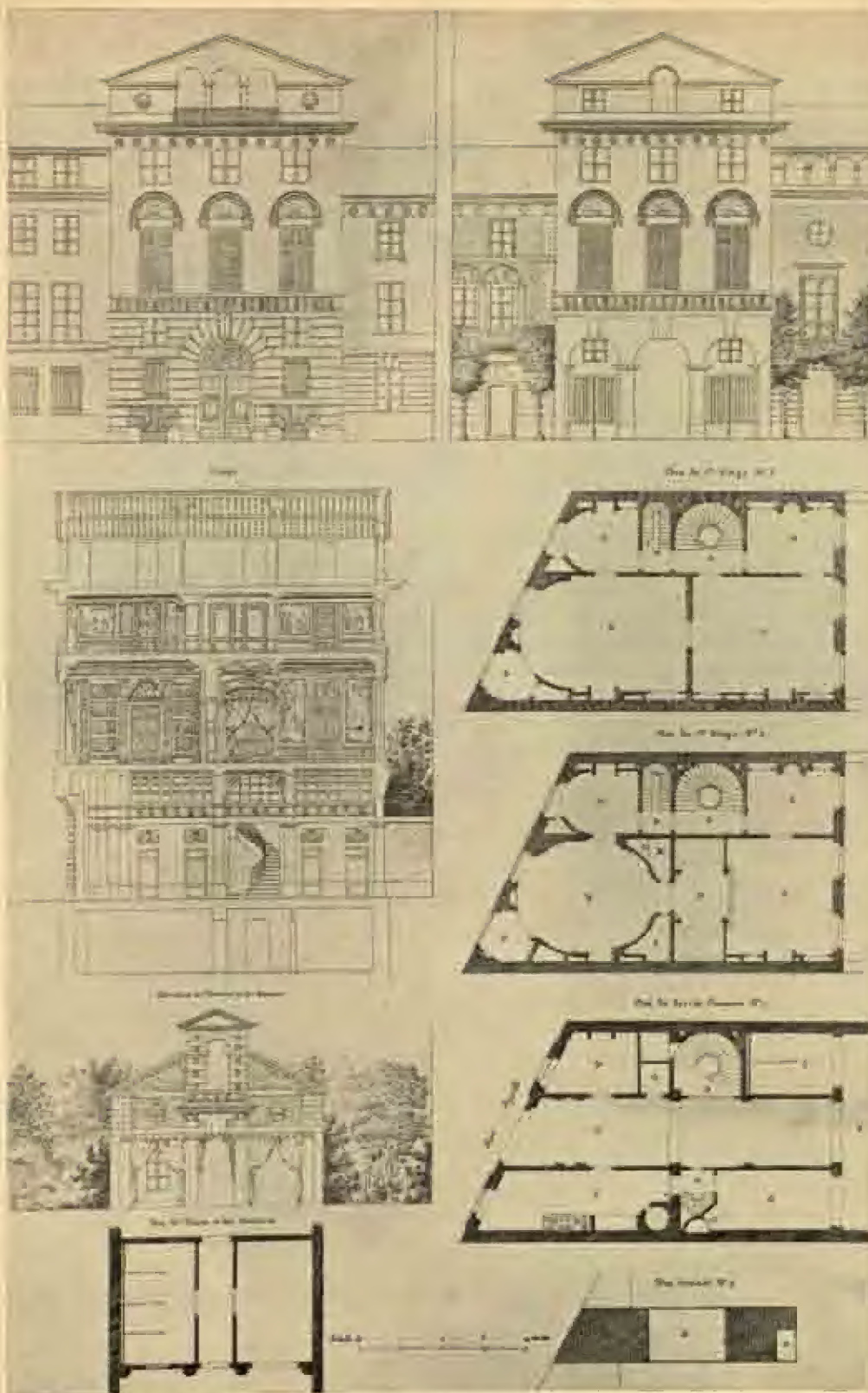
On the eighth of June 1781 the Opera, which Moreau-Desproux had built only eleven years before, on the site where now stands the Comédie Française, was burned down; and much discussion ensued as to how, and where, it should be rebuilt. Within a fortnight from the catastrophe the incredibly energetic Belanger had produced a fine and original design, in which the new Opera was made the centre of a scheme for connecting the Louvre and the Tuileries; the building being placed at the intersection of the axes of the two palaces. This plan was engraved by Berthault and bears the date "24 Juin, 1781." A beautiful plate by the same artist was issued shortly after, showing the great "Place Louis XVI" which was intended by Belanger, with the sculptured groups by Coysevox† adorning a new, eastern, entrance to the Tuileries. This engraving is of great interest as showing how Belanger modified his plan when working out the elevations; the great portico has become semi-circular, reflecting the form of the auditorium, with sweeping lateral flights of steps. In the oriental figures which decorate the fountain pylons we see already a forecast of the Directory period, and the pedimented masses of the guards' quarters might well be the work of a designer under the Empire.

After Bagatelle, Belanger found full scope for his active brain. He was given a free hand by the baron de Sainte-James to build him another "folie" at Neuilly; too close to Bagatelle to please

\* The total cost is estimated to have been three millions.

† Brought from Marly, and now at the entrance to the Tuileries gardens in the Place de la Concorde.





HOUSE, RUE PIGALLE : PARIS

From Kraft and Remondet





BAGATELLE. The Garden Front

From Vacquier, "Les Anciens Châteaux de France"

d'Artois. This building, too, is still standing, and has fallen into good hands after many vicissitudes. The grounds have unfortunately been much curtailed and are now shut in by neighbouring buildings, but the immense mountain of rockwork—brought from Fontainebleau at prodigious cost—at the foot of which a peristyle of Greek Doric columns gives entrance to a vaulted cavern, can still be seen; though its cascades and water effects have disappeared.\* It was the eccentricity of a rich "profiteer," and only the delicate good taste of Belanger saved it from vulgarity. Sainte-James might indeed have sat to Mr. Punch. "Do what you like so long as it is expensive," said he to his architect, and Sir Gorgias Midas would not have spoken otherwise.

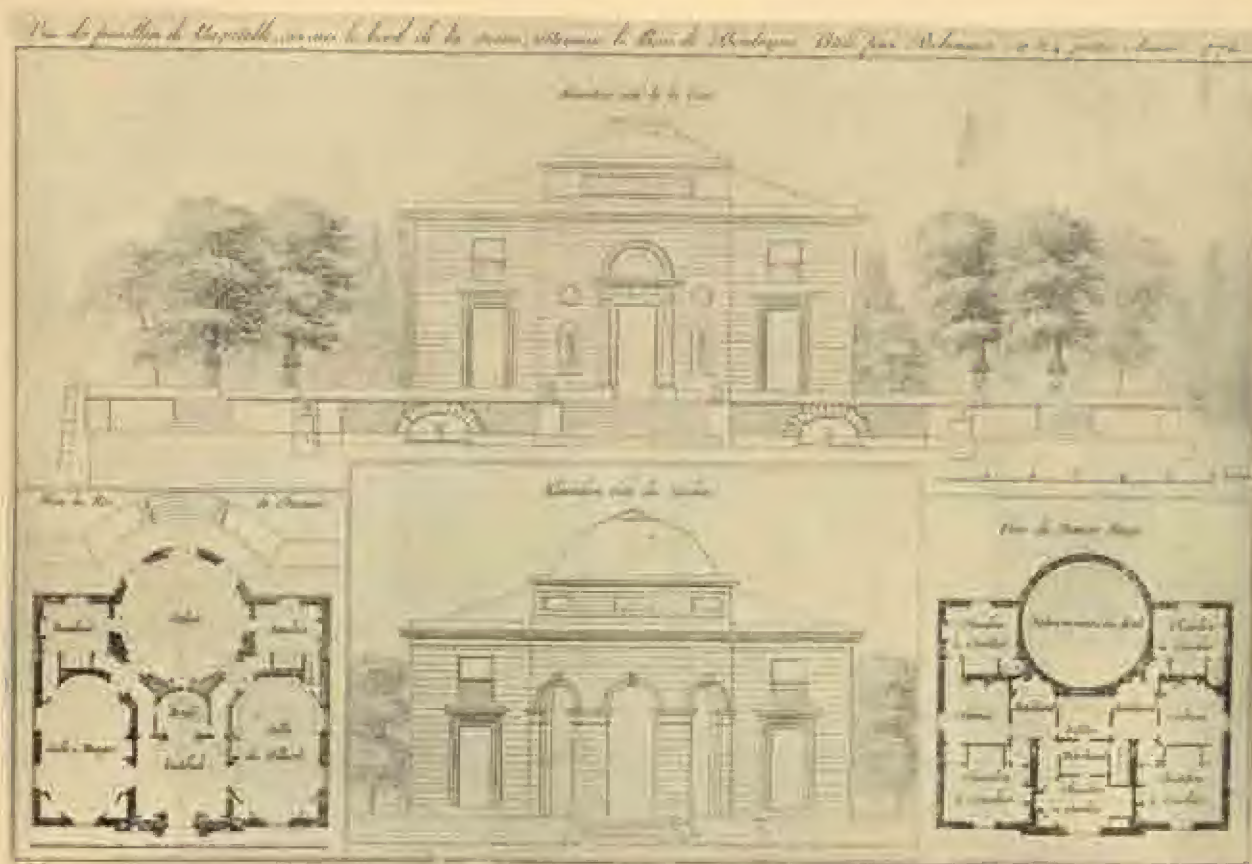
It is not surprising to learn that Sainte-James

\* A good photograph of this extraordinary conception is given in the *Paris* of André Hallays. (*Paris*: Perrin, 1913.) The house is illustrated in *Les Anciens Châteaux de France*, by J. Vacquier, (je série).

presently found himself in the "situation difficile" of owing 25 millions, and possessing only 20 millions. He went to the Bastille, and his properties were sold in 1787 for what they would fetch at auction, which was very little. The celebrated "Folie" was bought for 200,000 francs!

For all his ability and all his successes, Belanger was unfortunate in his money matters. His clients spent their fortunes recklessly; but debt was to them a condition normal to their rank, and troubled them not at all. Some, like the prince de Ligne, expected their works to go on whether they paid or not. The architect must find the workmen's wages and supply them with material as best he could, out of his own pocket if need were, in the hope of liberal repayment later. Madame de Coislin, for whom he had rebuilt Brimborion, became involved, with other patrons of Belanger, in the classic bankruptcy of de Rohan-Guéméné. The duchesse de Mazarin, who had incurred enormous expenditure



BACOVILLE. *Plan and Elevation*

From Krüger. "Architectural Capital"

on her hotel at the Quai Malaquais,\* died before it was finished, leaving her finances in hopeless disorder. D'Artois, who had always been niggardly in his dealings with the officers of his building department, fled across the frontier when the Revolution broke out, without troubling as to whether his architect and other creditors were paid. He owed nearly forty million francs!

"Heureux en amour, malheureux au jeu." Belanger's happy fortune in love did not follow his building ventures. Not that his judgment was in fault: but he had hardly finished some houses in the newly formed "Porcherons" quarter,† which he built for himself and Mlle Dervieux, before the Revolution flared up. No man's property was thenceforth safe, and values melted away. Both he and she lost nearly all they owned.

Anne-Victoire Dervieux was a new flame! An

\* Where is now the "cour des Etudes" of the Ecole des Beaux-Arts.

† Immediately north-east of the present Opera.

operatic star of great charm, and regrettable morals, she came to him as a client, became his mistress, and afterwards married him. Despite her tumultuous past she made him a good wife, shared his imprisonment and, after the storm which stripped them both had passed, showed herself a gracious hostess to the artists and scientists who—last survivors of the little Court where Sophie Arnould was queen—gathered at their friend's modest, but always open, house. Sophie herself—retired from the stage after twenty glorious years, only to face debt and mortal illness—preserved with sensitive tact the friendship both of Belanger and his wife. Witty and well read, the delightful letters she wrote during her later life place her among the memorable French women correspondents. We are beholden to M. Stern for printing many of those she addressed to her dear "bel ange," her "bien-aimé Vitruve," several of which are taken from his private collections. Gifted, free-handed, kindly souls, we may be a little blind to the faults of Belanger, his



Sophie, and his wife; very kind to their many virtues.

Belanger was a prodigious worker, and found his happiness in the incessant practice of his art. He was, nevertheless, a man of widely varied interests and attainments. Nothing seems to have come amiss to his versatile ability. We find him, in 1788, presenting to the Académie des Sciences a project for preventing the Seine floods, which had occurred in 1787 and the preceding years. This was approved and recommended to the Minister, by whose direction Belanger carried it out with, as it appears, at least temporary success. About the same time he was collaborating with the brothers Périér in improving the Paris water supply, and erecting pumping stations at Chaillot and Gros-Caillou. Deprived of his practice by the Commune, sorely ill, and locked in a cell at the bitter prison of Sainte-Pélagie, he fills his time by writing a commentary upon Howard's work on the Prisons of Europe. It was he who invented and built (no mean engineering feat at that time) the immense cupola of the Halle-aux-Blés, now the Bourse du Commerce; the first great roof of iron and glass. Of nearly the same diameter as the dome of Saint Peter's at Rome, the circular court had been covered, in 1782, by a wooden roof, framed in accordance with the principles laid down two hundred years before by Philibert de l'Orme. This was destroyed by fire twenty years later, and the design of Belanger, previously rejected as too costly, was then carried out. Architect of the Bibliothèque Nationale under the Directory, he prepared plans for the alterations needed to make the buildings reasonably safe from fire. Impressed with their dangerous condition he pressed on with this work as soon as the scheme was approved, and, was severely reprimanded for acting too hastily!

To Napoleon he presented a scheme for building six great abattoirs outside Paris, which was adopted, and Belanger was entrusted with the erection of one at Rochechouart. The work was inspected by the Emperor himself in 1810. Unfortunately, Belanger, who had the dangerous gift of writing clever letters, fell out with the Minister of Public Works, and was replaced by Poidevin. It was not the first time that Napoleon had approved the architect's proposals. During his First Consulate Belanger had made for him, in 1804, a new town plan for Brussels, which satisfied even his grandiose views. It might have been carried out, had not ill chance

(for Belanger) wrought the sudden elevation of Napoleon from Consul to Emperor. With this change came such pressure of State affairs as compelled him to set aside the question of improving Brussels.

M. Stern, with a Frenchman's happy gift of phrase, heads the first part of his work "*La douceur de vivre*"; which calls to mind how it was said, by those who remembered, that no one who had not lived during the reign of Louis XVI could ever realise how pleasant life could be. The contrasting misery that followed may, perhaps, have added to the sweetness of such memories. In the second part, "*Le mirage du passé*," we see the thin wraith of monarchy conjured from its dead past by the restored Bourbons. The forms are there, but without substance. Belanger is decorated, recovers his appointment as "Architect of the Menus-Plaisirs and designer to the King's cabinet," only to find there is no work of importance for him. He designs decorations for the coronation of Louis XVIII—as he had done, forty years ago, for that of his unhappy brother—arranges "*fêtes et cérémonies*," and eats his heart out in quarrels with officials. He could never work happily with such folk.

By the members of his own profession it is clear that he was respected, and his talent appreciated. The "*procès-verbaux*" of the Académie Royale d'Architecture contain many mentions of his designs for the Opera at the Carrousel, the Comédie Italienne, and other works which were submitted to that august company; who place on record that they "have inspected them with pleasure and expressed their approval." They receive, too, and approve, his translation of the treatise *De antiquis marmoribus* Blasii Carophylli. Among other gifts Belanger seems to have had some measure of oratory, and was chosen to pronounce the funeral eulogies of Brogniart (architect of the "Bourse") and Cellerier.

He trained many pupils, among them the celebrated Hittorff, who produced with Zanth a memorable work on Selinus and Greek polychrome architecture, and built the finely composed Gare du Nord. With Lecoq, a fellow pupil, he succeeded Belanger in his Court appointments, and designed his tomb at Père-Lachaise. As for Mlle Loiseau, the pupil who wrote a touching memoir of her dead master, she must surely be honoured as the granddam of all lady architects.

Belanger died in 1818, leaving to his wife little

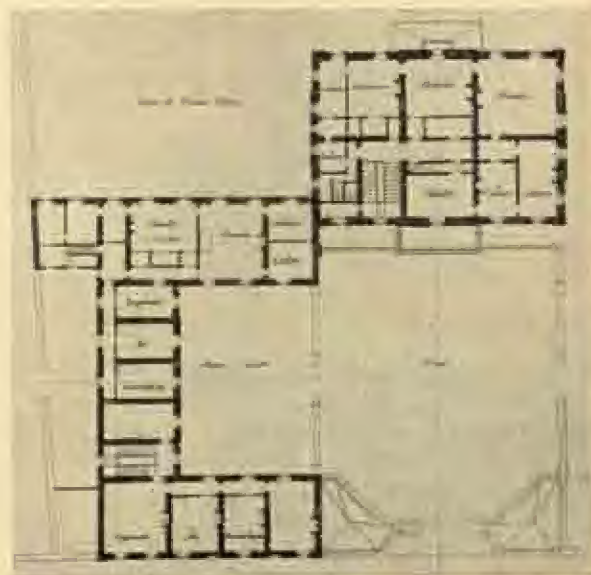




SAINTE-JAMES. *View from the Entrance Court.*



*Ground Floor Plan*

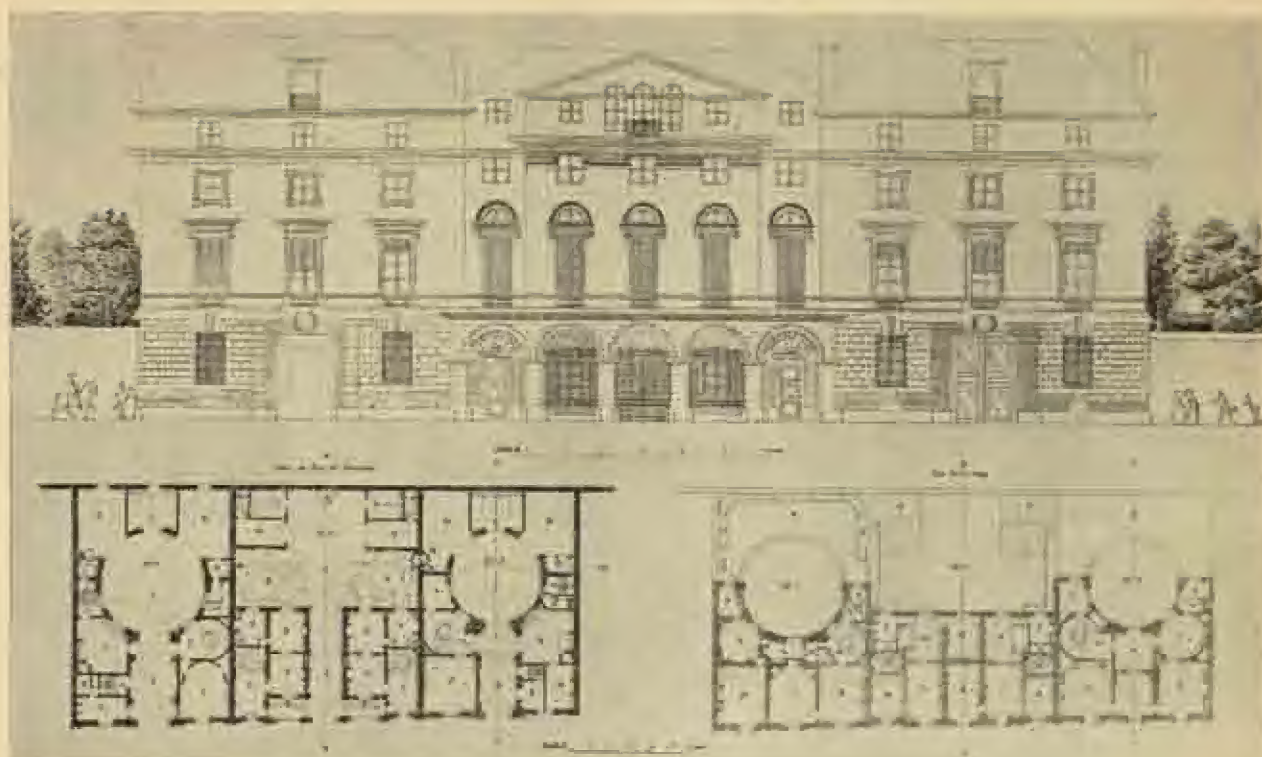


*First Floor Plan*

SAINTE-JAMES

*From Kraft and Hammerstein*





THREE HOUSES, RUE SAINT-GEORGES: PARIS

From *Kraft and Rasmussen*



but debt, some valuable works of art, and a considerable library. His books were catalogued for auction in two divisions which typify the variety of the man's studies; first, those on "architecture and the fine arts," second, works on "literature, agriculture, botany and other subjects." The sale occupied two days.

That M. Stern has had a very fascinating subject for his biography, does not lessen the compliment due to him for his work. Collation of the mass of notes and drawings scattered among the libraries, archives, and collections, whose names occupy two

pages of his Preface, must have needed long and patient research. As all historical work should be, his treatise is fully referenced and indexed. Most English architects read French nowadays, and will be glad to have the book brought to their notice.

When will our British publishers give us such books, well printed on light paper, easy to handle, and costing little more than a sovereign for the two volumes. Books that, even in these hard times we can buy and keep, instead of having to borrow them from libraries, and pay reluctant tribute to conscience by returning them!

## Reviews

### TOWN PLANNING IN THE U.S.A.

By DR. RAYMOND UNWIN [F].

OUR CITIES, TO-DAY AND TO-MORROW. *A survey of planning and zoning progress in the United States. By Theodora Kimball Hubbard (Honorary Librarian, City Planning Institute) and Henry Vincent Hubbard (Norton Professor of Regional Planning, Harvard University). Sm. 40. Camb., Mass. 1929. [Harvard University Press.] £1 11.*

Until Mr. Hoover, as Minister for Commerce, took up the task, town planners in this country were for years accustomed to look to Miss Theodora Kimball for current information as to the progress of planning and zoning in the United States. They will welcome as the result of her collaboration with Professor Henry Vincent Hubbard of Harvard University, the present volume which gives in more comprehensive form a survey of planning and zoning progress in the States.

This volume is one of the first fruits of the Milton fund for research in city planning, with which Harvard University has been equipped. This fund enabled the authors to arrange for a skilled representative to visit about 120 cities and 15 counties or regions scattered over 42 different states, so that the collection of information as to progress, which has been regularly issued in the past, is here supplemented by skilled observation on various methods of planning and zoning, and an indication of the lines on which further research is desirable.

The authors point out that the planning of cities and regions has become in the States, in a comparatively brief period, a recognised community activity. It is the kind of activity that continues. The comparison of results and research into the best methods and principles cannot be completed before the activity takes place, but must be carried on concurrently. In regard to the problems of town planning, the old theological dictum *voluitur ambulanda* must largely apply. It is only after much practice has taken place that it is possible to compare and scrutinise different methods and the results secured by them. A beginning is made in this volume, which is mainly devoted to a survey of activities and methods to be found in the different States of America. The volume is a mine of

information in regard to the legal conditions under which city planning is carried out; the different agencies and methods employed; and the steps taken to secure public support for city planning. The alternative methods available for meeting the cost of improvements, including long term programmes financed by means of bond issues or loans, special assessment, and excess condemnation, or the purchase of land for the purpose of recoupment of an outlay through improved values resulting from it, are all discussed. The various methods of sub-division of land, "platting" and control of platting, as it is called, zoning for use, density, height or volume of building, and the limitations imposed by constitutions or custom are also dealt with, and the results in different states compared.

The growing adoption of major street plans as a means of securing traffic relief, and the relation of rapid transit and mass transportation systems to other means of transport, are well brought out; while architectural control, the provision of parks and park-ways, and many other such subjects are included in the general survey of activities and methods connected with city planning. Many interesting differences between the legal conditions under which city planning is carried out in the States, as compared with this country, and differences in practice may be noticed, and they contain valuable suggestions for progress here. For example, the custom prevalent in many cities of carrying out new streets and street widenings within the city areas and paying for them by frontage charges, similar to those levied in this country only on the making up of a new street, is interesting. Out of 47 cities investigated in regard to this matter, it appears that only in the case of 15 were no such assessments made; whereas in the remaining 32 a considerable proportion of the cost was assessed on the frontages, in 14 cases the amount assessed being from 75 to 100 per cent. of the cost. The figures of increased values in regard to sites abutting upon the widened streets, seem to justify this method of payment, showing as they do in many cases that after paying the assessment the owners still enjoy a substantial further increment of value due to the street widenings. A number of interesting examples of special assessment are given.

In regard to traffic and transportation, it is stated that the motor cars on the roads now average one for every five



of the population, which is three or four times the proportion at present in use in this country. As the numbers here are rapidly increasing, and may ultimately approach the proportions found in the States, it is of special value to study conditions existing there to-day, as they afford both a warning and a guide to town planners in this country as to what pitfalls to avoid, and what conditions it is reasonable and wise to provide for in the future.

As the purpose of the book is to give a survey naturally there is comparatively little discussion or expression of personal opinion on the various subjects by the authors; but the advantages and disadvantages of methods which were found in operation in different places are clearly stated, and wherever practicable are traced to their causes. Both of the authors are to be congratulated upon producing a valuable and very readable survey.

### FLORENTINE FRESCOS.

BY H. C. HUGHES [A.].

FLORENTINE FRESCOS. By Professor Tancred Borenius. 40. London [1930]. [T. C. and E. C. Jack.] £7 1.

At a time when the Royal Institute of British Architects is enjoining on all its committees the strictest economy so that all possible moneys may go into the building of its projected headquarters, it needs a very fine book to justify the expenditure of seven guineas. This book does justify the expenditure—and it would have been a thousand pities if the new Library had not got it on its shelves.

Moreover, an Institute of Architects is naturally chary of books on painting. But the fresco painting treated here is so intimately bound up with architecture that, again, the book justifies its selection. The reproducing of fresco paintings in black and white is difficult enough; for they must be photographed in the actual light (or often darkness) that surrounds them; you cannot move them, as you can an easel picture, into more favourable surroundings. But reproduction in colour which so faithfully catches the special glow and depth of the fresco painting—this is indeed a triumph. And Professor Borenius will forgive us for saying that the superb collection of coloured reproductions, and no less than 30 out of 73 are in colour, are to us the first and greatest joy of the book. Turning over these pages enables us to conjure up visions of the walls of chapels and churches, cloisters and palaces, and to set them about with the easel pictures we saw at Burlington House this winter; and enables us to compare and contrast the vast with the small, the subjects of altar piece and marriage chest with the serene spaciousness of the wall picture; though we are able to avoid the slightly monotonous arrangement of some Gothic churches, such as the arena chapel at Padua, where the paintings are all laid out on the wall like cut-out pages of a book. And it is very hard to appreciate them separately.\*

\* In one picture indeed, by Cimabue, at Assisi, the lights have turned so dark with time that the original looks like a photographic negative. The balance is restored by printing the reproduction from the negative, and so giving the look of the undamaged picture.

And here we may note that Florentine frescoes does not mean frescoes at Florence; about a third of those shown are not at Florence at all, though they are by Florentine painters; though in the case of those two great painters who left Florence young, Leonardo and Michelangelo, Professor Borenius gives only the story of the cartoons they made for the great Council Chamber which had been added to the Palazzo Vecchio. Cellini says of these cartoons in his autobiography that "As long as they remained visible they were the school of the world." And travellers must not follow too closely the titles of the pictures when looking for frescoes in Florence; for instance, is not Fra Angelico's Annunciation (Pl. 34) on the wall facing the stairs in the corridor on the 1st floor of San Marco, and not in Cell 3? and St. Francis renouncing his heritage at Assisi should be at Sta. Croce, and *vice versa*.

Delightful to architects also are the buildings that figure in the paintings. Graceful Gothic or early classic cloisters and porticoes, outside stairways, city streets, and the coloured margins of rib, vault and margin, and the painted sculpture with which Paolo Uccello commemorates the English soldier adventurer, Sir John Hawkwood. Moreover, the fact is fresh and comprehensible to the ordinary man. Professor Borenius shows quite unobtrusively that he knows the byways of research, and not the least notable part of the book is the way in which he illustrates the descent of Giotto from the tradition of the Roman painters. His commentary on the pictures is always illuminating and he ensures that the eye shall not stray recklessly from print to plate by arranging always just a few pages between. Altogether this is a book for which architects may well be grateful, both to Professor Tancred Borenius, his publishers, and to the R.I.B.A. for getting the book.

### CHINESE ARCHITECTURE.

BY ARNOLD SILCOCK [F.].

BULLETIN OF THE SOCIETY FOR THE RESEARCH IN CHINESE ARCHITECTURE. No. 1, July, 1930. Vol. 1.

This is the title of a new art journal, printed and published in Peking, of which a copy of the first issue has just arrived in England.

This journal is sent "with the compliments of the Metropolitan Library, Peking," and the address of the society which publishes the bulletin is 7, Pao Chu Tse Hutung, East of Wai Chiao Pu Street, Peiping, China. It is printed on thin Chinese paper in approximately crown 4to. The list of contents given on the front cover is as follows:—

Frontispiece:

A Portrait of Li Chieh—Author of "Yin T'iao Fah Shih."

Articles:

1. The Founding of the Society.
2. Opening Speech by Chu Chi Chien, President of the Society.



3. The 280th Anniversary of Li Chieh.
4. Writings on Chinese Architecture by W. Perceval Yetts (with translation in Chinese).
5. A Chinese Treatise on Architecture by W. Perceval Yetts (with translation in Chinese).
6. A Record of the Errata Found in the 1925 Edition of "Yin Tsao Fah Shih."
7. A Request for the Finding of Valuable Writings and other Records on Chinese Architecture.
8. A Revised Publication of the 1925 Edition of "Yin Tsao Fah Shih" by the Commercial Press, Shanghai. News Column.

The frontispiece must be looked for on the last page. With one exception, the other items are not of very great interest to western readers, although the notice of the revised publication by the far-seeing commercial Press, Shanghai, of the most celebrated book written by a Chinese on Chinese Architecture, the *Yin Tsao Fah Shih*, will be of great interest to those students who have not already heard about it.

The feature which arrests attention is No. 4, which consists of a reproduction by photography of a complete article with half-tone illustrations from the issue of March, 1927, of the *Burlington Magazine*.

This absorbingly interesting and scholarly article, which is by W. Perceval Yetts, is entitled "Writings on Chinese Architecture," and it should greatly please Mr. Yetts to find that his patient research work on this subject is so fully appreciated in China itself, even though piratical methods have been employed in order to reproduce it! The article is followed by a translation, English done into Chinese, which adds still further point to the compliment.

It is just this type of society and publication which China needs and it is to be hoped that western scholars will be only too pleased to help such young organisations by allowing their work to be reprinted in this way in China.

#### THE LIBRARY.

#### NEUZEITLICHE HOTELS UND KRANKENHAUSER.

Narrow 40. Berlin, 1929. [Ernst Pollak]. £3 3s.

Books on hotel design are few, and as far as I know none has been produced since before the war. Any publication dealing with the subject is therefore sure to excite interest. The present work consists of nearly 500 plates—plans and elevations with explanatory notes. By far the greater number of subjects illustrated are German, but some American, Swiss, and Austrian hotels are included. There are no English examples. The small size of the plan reproductions, and in most cases the absence of scale, detracts from their practical value, but the illustrations are in nearly all cases of very great interest both from the point of view of layout and of their treatment. The restraint and delicacy of such hotels as those of Professor Fahrenkamp at Düsseldorf and Cologne are admirable and the spaciousness and efficiency of the planning remarkable. A defect (common to many architectural books) is the absence of an index, so that plans and plates must be looked for under the names of their architects. The production of the volume is particularly good.

J. M. E.

#### NOTES BY MEMBERS OF THE SCIENCE STANDING COMMITTEE

THE INVESTIGATION OF ATMOSPHERIC POLLUTION. *Fourteenth Report. Department of Scientific and Industrial Research. H.M. Stationery Office. 3s. 6d.*

It is not often that one finds arresting eloquence in tables of dry statistics, but the happy inspiration which induced the Research Committee to substitute, at least in their summarised results, the striking figure of *tons of deposit per square mile* instead of the unconvincing figure of grammes per square dekametre of the earlier reports, will do more than anything else to awaken the interest of architects and of the general public in the subject of atmospheric pollution. When one reads in the first pages of this report of 36 tons of tar being deposited per square mile per annum at Salford as against 20 tons at Newcastle, and that Burnley still continues to hold the unenviable record of depositing annually no less than 140 tons of sulphates per square mile, even the most blasé and casual reader is forced to think; and public interest is precisely what is needed, no less than accurate knowledge.

Atmospheric pollution can be reduced and largely prevented. There is no need whatever for the greed or criminal carelessness of manufacturers and householders to continue to ruin our buildings and to rob our people of fresh air and sunlight by excessive smoke. The public have ample powers to protect themselves against atmospheric pollution if they will only make use of them. But though scientists may devise preventive measures and engineers produce them in forms which secure valuable economy at slight cost—although public spirited enthusiasts may organise lectures and press campaigns—although Parliament may impose statutory obligations upon local authorities—although Government Departments may publish the most perfect statistical information in the form best calculated to induce the more backward authorities, for very shame, to put their house in order—the real remedy lies in the hands of the man in the street, the local ratepayer, whose leader in this matter should be the local architect no less than the local doctor.

Ample machinery for enforcing clean air is in the hands of the local authority who may or may not employ a smoke inspector. But human nature being what it is what prospect is there of a local authority or of their smoke inspector proceeding against an influential local manufacturer who has taken the precaution to secure a seat on the borough or the local council? Municipal authorities there are in plenty who indicate their interest in clean air by active cooperation on the Standing Conference organised by the Department of Scientific and Industrial Research, by subscriptions, and by the contribution of records which indicate their desire to see their own figures of pollution reduced year by year. But the number, large as it is, of such bodies given in the Report is but a small proportion of the total of those who are entrusted with statutory obligations.

It is the clear duty of every architect who is not content with helplessly deploring the evil effects of smoke pollution, whether in his armchair or in the Press, to study and digest this report—the analysis by Dr. Owens of shade scales in



Appendix 1 alone is well worth the cost. It should inspire him to enquire what his local authority has done, is doing, or is going to do; to observe cases of black smoke in his own neighbourhood; and, if his local Council will not prosecute, to bombard the Ministry of Health, to worry his local Member of Parliament, to make himself a nuisance in the local Press, and as a last resort, to lay information himself for a Police Court prosecution of the offender.

There are, of course, many less drastic ways in which he can promote the cause of clean air. But first he must get his facts right, and a careful perusal of this Report should at least enable him to do that.

PERCY J. WALDRAM, F.S.I.

## Correspondence

### ENGLISH CHURCH ART.

71, St. James's Street, S.W.1.  
10 August 1930.

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—I must beg you to excuse my troubling you with this letter, which I am driven to write by Mr. P. A. Robson, who, in his letter to you (published in your JOURNAL on August the 9th) makes the following misstatement concerning my article on English Church Art. His words are: "He mentions none of the fine arts (except Mr. Stephen's work), and endeavours to draw comparisons between living and dead art by contrasting the mediæval work at S.K.M. (now showing) and picking out corresponding crafts as exemplified at Caxton Hall last month." If Mr. Robson would refer to my article again he will see that I nowhere in it mention "Mr. Stephen's." He will also find that my article does not set out to be a comparison of the exhibitions as such, but only a comparison of the treatment of three or four fundamental principles, such as sex in angels, opacity, and constructional qualities in stained glass windows, and pattern on pattern. He calls attention to my not having mentioned the Wantage "dorsal" (*dorsal*) which is a flagrant example of pattern on pattern. And he seems to have overlooked the fact that I have given the highest praise to the designer of it, Mr. J. N. Comper, for the other examples of his work. I find not a word Mr. Robson has written upsets what I wrote on the principles above referred to.

Faithfully yours,

C. F. ANNESLEY VOYSEY [F.].

### THE PUBLIC CONTROL OF BUILDING.

August 1930.

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—Readers of the JOURNAL may remember that in 1922 I was privileged to read a paper at the Royal Institute of British Architects upon the law of building outside London. It is fully reported in numbers 4 and 5 of volume XXX of the JOURNAL. The Institute have

now again been so good as to invite me to read a paper, and the Minister has authorised my doing so. It will be on 17 November, and will be called "Public Control of Building: the position in 1930." There are some points where I shall have to go back to my paper of 1922, if only to set out alterations in the law, but it will avoid repetition and give more time for dealing with subsequent developments if my listeners will look up their copies of the JOURNAL for 1922, and also for January 1930, when you inserted a memorandum (cited in my remarks upon Mr. Baillie Scott's paper of 16 December 1929) giving a tabular history of the reform of byelaws to the end of 1929. Without at the moment tying my own hands, I can say that I mean to start from these published documents of 1922 and 1930; then make some reference to London (which was left out in 1922), although the Minister of Health has not much jurisdiction as to building in London, and I shall not use up my time by dealing with it in full detail. I hope also to run through the model byelaws with respect to new streets and buildings, and perhaps those with respect to water fittings, calling attention to some interesting points, and to end with some remarks of wider scope. Necessarily I am myself unable yet to forecast these last, since the Minister has lately received an important deputation from various bodies interested in building, and by the middle of November there may be more to say. This last part of my paper may turn out interesting—or it may not! Meanwhile, in asking you for space for this letter, I feel it will be helpful to me and to your readers if I can hear in advance of any points, which otherwise might not have occurred to me, with which they would like me to deal. I shall take my annual leave in the latter part of September and at the beginning of October, but any letters sent to me here will be opened in my absence and the collecting of information needed for my paper will proceed. I will try to include anything suggested within, at any rate, a month of your publishing this letter, if you can see your way to do so.—Yours faithfully, A. N. C. SHELLEY, Ministry of Health.

### DAMAGE TO PLUMBING WORK BY FROST.

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—The recommendations in your issue of 9 August, page 681, are all common sense and reasonable and have been adopted for years by many architects.

There is one point, however, which seems to have been overlooked, that is that the stop taps should not be of the ordinary screw down washer type because the washer soon perishes, and when the stop tap is urgently required it is leaky and useless; a washerless stop tap of some sort should be insisted on. Even an old-fashioned plug stop tap would be better than a tap with a washer.—Yours faithfully,

J. W. B. HARDING [L.].

### S.P.A.B. SCHOLARSHIP.

The S.P.A.B. newly instituted Scholarship for research work on ancient buildings, and open to senior students of London Schools of Architecture, has been won by Mr. David Nye, Central School of Arts and Crafts.



## STONE DECAY IN SANDSTONE BUILDINGS.

While there are many causes of stone decay, it is generally accepted that the most active and serious cause in this country is the attack on lime compounds of the sulphur acids of the air, with the formation of sulphate of lime, which moves in solution within the stone, and when it is deposited and crystallises breaks up the stone surface.

In the case of limestones and calcareous sandstones, the stone itself supplies at any rate some of the material for attack, but we have another source of supply of sulphate of lime in solution, namely, the mortar or cement.

The importance of this as a source of trouble has only been thoroughly realised in recent years. In many cases buildings of siliceous sandstone free of calcareous compounds, and brick buildings, have been found to be decaying rapidly because of the crystallisation of sulphate of lime within the stone or brick which has been drawn by capillary attraction from the lime or cement.

The repointing of old sandstone buildings does in some instances result in rapid decay of the stone.

It is evident, then, that in order to remove the source of the trouble the mortar requires first consideration.

If the surface of the stone is hardened with a stone preservative, this can only produce a temporary improvement, as the sulphate of lime formed in the mortar is still passing to the stone and crystallising beneath the surface, so that it may well be that ultimately the last state of that stone may be worse than the first.

What then is required is to replace the mortar or cement containing calcareous compounds by a mortar which contains no such materials, and therefore cannot infect the stone.

Some years ago I directed the attention of architects to the silicon esters as stone preservatives. Applied in a liquid form, they cement the particles of the stone together with a layer of silica, similar in composition to flint, and practically indestructible. Since then a large amount of research has been done on these esters, and their toughness and cementing properties improved, but the most important discovery is the production of a silicon ester mortar for pointing old buildings. As the binding material in this mortar is silica, it is free from lime compounds, and will not be attacked by sulphur acids.

The preparation of this mortar enables us to deal with the problem of successfully preserving old sandstone and brick buildings.

The first step should be to rake out the joints and point to a depth of two or three inches with the silicon ester mortar. In this way the source of infection with sulphate of lime has been removed. If the surface of the stone is very tender, immediate treatment with silicon ester may be necessary but it is better if possible to postpone treatment and spray with water in the summer to remove sulphate of lime. When a chemical examination shows the amount of sulphate of lime to be no longer serious, then the surface may be hardened and bound with silicon ester—best applied as a poultice—to ensure penetration.

Limestone and calcareous sandstone buildings present a more difficult problem. In the case of such materials, the silicon ester mortar should be so composed as to draw the sulphate of lime from the stone. In this way an im-

provement and diminution of the rate of decay will doubtless be attained.

A. P. LAURIE [*Hon. A.*].

## THE SUNLIGHT LEAGUE.

Having been nominated by our Council to act as the Institute's representative on "the Sunlight League," the following notes may be of some interest to our Members.

The aims of this League are:—

(1) To propagate a knowledge of the importance of sunlight for the prevention of disease generally.

(2) To educate the public to the appreciation of sunlight as a means of health.

(3) To advocate the establishment and maintenance of natural sun-bathing centres.

(4) To co-operate with other agencies engaged in allied work, such as Smoke Abatement Societies, Child Welfare Institutions, Housing and Town Planning Societies, Hospitals, Artificial-Light Treatment Centres, etc.

The Annual Meeting was held in July at the town residence of the Duke of Sutherland, who presided. Among those taking part in speeches were Sir Richard Paget, Dr. Saleeby, Dr. Robert Forgan, M.P., Sir William Arbuthnot Lane, Dr. Kathleen Vaughan, Dr. Hector Munro and Miss Baden Powell.

Appeal was made for the support of architects in the construction of flat roofs, where suitable, as open-air shelters. Dr. Leonard Hill's investigations testifying to the remarkable and unexpected figures of "ultra-violet" light-rays recorded in many parts of England and Scotland, in many cases equal to those of Leyzin in Switzerland, which has gained notoriety on account of the propaganda of Dr. Rollier and others. Bathrooms should be capable of use for light-bathing more than is the present custom, thus taking advantage of Nature's gifts, which have in the past been too little appreciated, the beneficial effect of moving air upon the human body also being little realised. Generous appreciation for the recent ventures of some public authorities in the construction of "open-air" bathing facilities was expressed as a relief to the restricted conditions of a vast proportion of our people.

FRANCIS HOOPER [*F.*].

## THE ROYAL SANITARY INSTITUTE.

The 42nd Congress and Health Exhibition of the Royal Sanitary Institute will, at the invitation of the Corporation, be held at Glasgow from 4 to 11 July 1931, under the Presidency of Sir Henry Mehan, I.L.D.

## ROYAL SOCIETY OF ARTS.

The Royal Society of Arts announces a Special Competition for Designs in Beak, under the Architectural Decoration Section, to be held in November 1930.

Particulars may be obtained on application to the Secretary of the Royal Society of Arts, John Street, Adelphi, W.C.2.



## Sir Aston Webb

BY E. GUY DAWBER, A.R.A., P.P.R.I.B.A.

The death of Aston Webb calls up memories of old days and breaks a link with the past that is difficult to realise.

I first met him when he was President of the Architectural Association in 1881, on the summer excursion at Worcester, and though I was quite a youth at the time—indeed the youngest member of the party—I well remember his kindness to me, his friendly advice and the keen interest he took in my sketches. He was then rapidly rising in the profession and becoming a well-known architect, and when I came to London some few years later he still continued to take the same kindly interest in my work. Later, when it was my turn to occupy the chair of the Architectural Association, although a very busy and much occupied man, he made a special point of coming to the meeting and proposing the vote on that occasion—an act of courtesy which I greatly valued. Again, in later years on his election as President of the Royal Academy and his vacating the post of Treasurer to the Artists' General Benevolent Institution, it was through his expressed wish that I was elected to fill his place, and in many other ways, too numerous to mention, he always treated me as one of his friends, and I am quite sure that my experience is only that of many others.

But, beyond anything else, the thing that endeared him to everyone was his courtesy, his dignity and personal charm of manner. Nothing seemed to ruffle him or upset his calm—he always seemed to have time to listen sympathetically to the troubles of others and to help them with his friendly advice. In the stormy days at the R.I.B.A. some twenty or more years ago, when acrimonious discussion and argument

took place over Registration Bills and so on, Sir Aston Webb would sit quietly and then at the close, with a few well-chosen words, would pour oil on the troubled waters and leave everyone in good humour—a gift indeed to be envied.

He was a speaker of easy grace and fluent tongue—never at a loss—on any and every occasion he said just the right thing and what one would wish him to say, and always kept up the dignity of his position and placed the calling of architecture on a high level. With all the talk of raising the status of the profession he had but little sympathy and contended that it was the work, the actions and behaviour of its members that raised or lowered that status.

He was a man of wide interests and broad views, cultured, well read, and a most interesting talker, and his position as head of the architectural profession and President of the Royal Academy brought him into contact with every person of note in all walks of life.

Of his work as an architect it is unnecessary to speak. His must have been a happy life, with an office full of jobs—on a scale that few could hope for. Success and honours came to him, but above all he has left a memory behind him as one of the most honoured members of our profession.

The accident that struck him down so tragically some few years ago prevented his taking an active part in public affairs to a great extent and cast a shadow over his declining days, but his name for so long had been a household word that it is difficult to realise for the moment that Aston Webb is dead.

Avignon.

10 September 1930.

### FUNERAL OF SIR ASTON WEBB, G.C.V.O., C.B., P.P.R.A., IN ST. PAUL'S CATHEDRAL, 25 AUGUST 1930.

REPRESENTING H.M. THE KING: ADM. SIR HENRY CAMPBELL, K.C.V.O., C.B.

REPRESENTING H.R.H. PRINCESS LOUISE: BRIG.-GEN. ALFRED E. J. CAVENDISH, C.M.G.

#### PALL-BEARERS

Sir William Llewellyn, P.R.A., Mr. Walter Tappier, A.R.A., P.P.R.I.B.A., representing Sir Banister Fletcher, President R.I.B.A. in the President's unavoidable absence on the Continent, The Rt. Hon. John Burns, Sir Arthur S. Cope, R.A., Sir C. Harcourt Smith, The Mayor of Kensington, Sir Frederic G. Kenyon, Sir Basil Mott.

Sir Edwin L. Lutyens, R.A., and Sir W. Goscombe John, R.A., carried the Orders of the Past President. Sir Frank Short, R.A., Treasurer, and Mr. Walter W. Russell, R.A., Keeper, carried the wreath from the Royal Academy.

#### MEMBERS OF THE ROYAL ACADEMY.

Sir George Clausen, R.A., Mr. Adrian Stokes, R.A., Mr. R. Arning Bell, R.A., Sir John J. Burnet, R.A., Mr. W. Reid Dick, R.A., Mr. Alfred Drury, R.A., Mr. Melton Fisher, R.A., Mr. George Harcourt, R.A., Sir G. Gilbert Scott, R.A., Mr. M. Graiffenhagen, R.A., Mr. Sydney Lee, R.A., Mrs. A. L. Swynnerton, A.R.A., Sir Herbert Baker, A.R.A., Sir Edwin Cooper, A.R.A., Mr. W. Curtis Green, A.R.A., Mr. L. Campbell Taylor, A.R.A., Mr. G. Spencer Watson, A.R.A., Dr. J. W. Macchall.

Representing the Prime Minister: Mr. Alistair MacDonald. Representing the First Commissioner of Works and Sir Lionel Earle: Mr. Auriol Barker. Representing The Admiralty: Mr. A. W. J. Davies. Representing the Imperial Society of Knights Bachelor: Sir Trevor Dawson and Sir Harry Courthope-Munroe. Representing The Order of St. John of Jerusalem: Col. Francis W. Pixley. Representing The Imperial Society



of Science and Technology; Prof. Sir Harold Carpenter, Representing The Commissioners of 1851 Exhibition; Mr. Evelyn Shaw, Representing The British School at Rome; Mr. Stanley Quick; Representing The Conservative Club; Mr. Bruce Otley; Representing The Institution of Mechanical Engineers; Mr. R. H. Harry Stranger.

Sir Andrew T. Taylor; Sir Charles Holmes; Mr. Henry Ainley; Mr. Philip Norman; Sir Mervyn Macartney; Sir Arthur Pinero; Viscount Cowdray; Sir George Humphreys; Town Clerk of Kensington; Sir Edgar Bonham Carter; Belgian Chargé d'Affaires; German Chargé d'Affaires; Sir Herbert and Lady Jackson; Sir John W. Simpson, Past-President R.I.B.A.; Mr. J. Alfred Gough, Past-President R.I.B.A.; Mr. Henry M. Fletcher, Vice-President R.I.B.A.; Mr. E. Stanley Hall, Past Vice-President R.I.B.A.; Mr. G. G. Wormum, President of the Architectural Association; Mr. F. Winton Newman, Past-President of the Architectural Association; Mr. Stanley Hamp, Past-President of the Architectural Association; Col. Wilfred J. Hardcastle, President of the South-Eastern Society of Architects; Mr. J. Arthur Smith, President of the Hampshire and Isle of Wight Architectural Association; Mr. R. S. Reid, representing the Edinburgh Architectural Association; Mr. C. D. Spragg, Assistant Secretary R.I.B.A., also representing the President and Council of the Royal Institute of the Architects of Ireland; Mr. J. Goddard Wilson; Mr. W. Scott Deskin; Mr. E. W. Marshall; Mr. W. Henry White; Mr. Charles Woodward; Mr. E. C. P. Morison; Mr. Edward Warren; Mr. Percy H. Adams; Mr. A. D. Reid; Mr. A. B. Hayward; Mr. W. H. Hobday; Mr. W. Campbell Jones; Mr. E. Vincent Harris; Mr. Percy J. Waidram; Mr. P. E. Pöhner; Mr. Arthur E. Henderson; Mr. J. Hatchard Smith; Col. W. H. Hatchard Smith; Mr. T. James, representing Mr. Eric MacLagan (Hon. Associate R.I.B.A.); Mr. Sydney Tatchell; Mr. Geoffrey C. Wilson; Mr. Fredk. Chatterton; Mr. C. H. Biddulph-Pinchard; Mr. D. Barclay Niven; Mr. W. A. Pite; Mr. Louis Ambler; Mr. H. Greville Montgomery (Hon. Associate R.I.B.A.); Mr. Clyde Young; Mr. T. Raffles Davison (Hon. Associate R.I.B.A.); Mr. John E. Sears; Mr. Alfred Cox; Sir Henry Tonner; Mr. Noel Heaton (Hon. Associate R.I.B.A.); Mr. Edward Maufe; Mr. E. C. Freer; Mr. Edward Unwin; Mr. E. J. W. Hider; Mr. A. R. Conder; Mr. George A. Hall; Mr. Howard Robertson; Mr. H. Douglas Kidd; Mr. Arthur Ashbridge; Mr. Lawrence A. D. Shiner; Sir A. Brunwell Thomas; Mr. H. Edmund Mathews; Mr. C. Ernest Elcock; Mr. S. Pounton Taylor; Mr. Charles Holden; Mr. Francis Hooper; Mr. Geoffrey Lucas; Mr. J. Harold Gibbons; Mr. R. Goulburn Lovell; Mr. G. A. T. Middleton (Hon. Associate R.I.B.A.); Mr. E. J. Sadgrove; Mr. E. A. D. Tanner; Mr. F. E. Towndrow; Mr. Herbert Shepherd; Mr. C. E. Bateman; Mr. W. E. Riley; Mr. Claude Ferrier; Mr. A. R. Myers; Mr. F. R. Gould Wills; Mr. Oswald P. Milne; Mr. L. Rome Guthrie; Mr. R. W. Cable; Mr. R. G. Barr; Mr. C. F. A. Voysey; Mr. H. F. Burke Downing; Mr. W. H. Ansell; Mr. H. D. Searles-Wood; Mr. J. Alan Slater; Alderman Lansdowne; Mr. W. J. H. Leverton; Mr. C. Stanley Peach; Mr. Edward Warren; Mr. and Mrs. A. C. Pickford; Mr. W. R. Davidge; Mr. and Mrs. Dawson; Mr. Compton; Miss Davis; Lady Kenyon; Mr. Gordon Elworthy; Councillor Albert Smith; Major Shingleton; Lt.-Col. Cranfield; Mrs. and Miss Betell; Councillor W. J. Saunders; Mr. and Mrs. Walter Gilbert; Mr. Howard Castle; Mr. T. Tyrwhitt; Mr. T. E. Smith; Mr. B. T. Colley; Mr. W. Travers; Mr. and Mrs. Herbert Warren; Mrs. Grove Johnson; Lady Hughes; Councillor Abbey; Mrs. Edwin A. Abbey; Mrs. Charles Simms; Mr. Alex. Martin; Mr. W. H. Hill; Rev. C. Block; Rev. Dean; Mr. W. H. Parry; Group Capt. Nichol; Mr. and Mrs. Hall Neale; Mr. and Mrs. W. A. Cater; Mr. R. A. Fowler; Mr. F. A. Hayward; Mr. S. L. Amor; Lady Cooper; Mr. H. B. Lemere, F.R.P.S.; Mrs. Curtis Green; Miss Snell; Mr. Robert Emmet; Mr. E. J.

Hill (Higgs and Hill); Mr. C. A. Hindley (President of the Institute of British Decorators); Dr. and Mrs. R. Muzio Williams; Mr. and Mrs. Clifford Smith (Victoria and Albert Museum); Mr. G. W. Marshall.

A list of Sir Aston Webb's work includes the new façade to Buckingham Palace, and architectural surroundings of the National Memorial to Queen Victoria; the Admiralty Arch, Charing Cross; the completion of the Victoria and Albert Museum, South Kensington; Britannia Royal Naval College, Dartmouth; the Royal College of Science, Dublin (with Sir T. M. Deane); the Royal College of Science and the Imperial College of Science and Technology, South Kensington; the new building for the Grand Trunk Railway of Canada, Cockspur Street; the Leys School, Cambridge; restoration of St. Bartholomew's, Smithfield; the French Protestant Church, Soho; numerous private houses, including Yeaton-Peverley, Shrewsbury; Christ's Hospital (Blue Coat School), Horsham, and the Law Courts, Birmingham (with the late E. Ingress Bell); reconstruction of the Army and Navy Co-operative Society's Stores, Law Courts, Hong Kong; Wesleyan Centenary Hall, Bishopsgate; Evelyn Nursing Home, Cambridge; Home of Rest, Whiteley Village; and refronting the Royal Society of Arts.

Also in partnership with his son, Mr. Maurice E. Webb [F.], Royal Air Force Club, Piccadilly; Birmingham University extension; Kensington, Fulham and Chelsea Hospital; Wesley Hotel, Cambridge; Malvern College reading room; Nos. 36-44 Moorgate; Ocean Accident and Guarantee Corporation, Moorgate; Artillery House, Westminster (with Mr. H. A. Dawson [A.]); Russell School, Ballards, Addington; Howell's School, Denbigh; war memorials for the Dover Patrol, Kent; the London Troops, Royal Exchange; the Stock Exchange; Malvern College, and Hertford town.

### JAMES BOW DUNN, R.S.A. [F.].

By Sir GEORGE WASHINGTON BROWNE, P.R.S.A., LL.D. [F.].

By the sudden and premature death of Mr. J. B. Dunn, Scotland has lost one of her most capable and successful architects. Born at Pollockshields, Glasgow, in 1861, he was educated at George Heriot's School, Edinburgh, and apprenticed to the late Mr. J. C. Walker of that city, a fine type of the older school of architect, who instilled into him the virtue of thoroughness in everything he undertook, a virtue that never waned. Starting practice for himself in 1887 he early came into public notice by obtaining second place in the Assessor's award in the competition for Edinburgh Public Library, and by having his design for the Library for the Society of Solicitors before the Supreme Courts adopted by that body—a work which gave him a valuable introduction to the legal fraternity.

While still a comparatively young man he was entrusted along with Mr. now Colonel J. Leslie Findlay, who was for a short period in partnership, with the designs for *The Scotsman* office and printing rooms. The site chosen was a commanding one at the open end of the reconstructed North Bridge Street, with its principal frontage in full view not only from the bridge but from the eastern half of Princes Street. The opportunity was a great one, and Mr. Dunn did ample justice to it. With the northern façade rising from the low level of the valley



and the principal entrances to the office at the level of the bridge that spans it some 50 feet higher, and a public staircase giving communication between the two levels, the problem was a complex one alike on the practical and the artistic sides, and the resultant building is a lasting tribute to the marked skill with which both aspects of the problem were solved.

The extensive and varied nature of Mr. Dunn's practice may be judged by the following list of some of his more important works in addition to those already mentioned. The Adam Smith and Beveridge Memorial Hall, Kirkcaldy; Queen's Club, Victoria Buildings, Dean Parish Church, Charteris Memorial Church, "Beetholm" and lodges, all at Edinburgh; Burntisland Church and Hall, Menstrie Church and Hall, "Glenfarg House" and "Balmacraig," Perthshire; "Nether Caberstone" and "Bellenden," Peebles-shire; the reconstruction after fire of "Haggerston Castle," Northumberland, and of "Blair Drummond," Perthshire; "Gargrave," Yorkshire; additions to "Carham Hall," Northumberland; business premises for Messrs. Jenner and others in Edinburgh, and War Memorials at Jedburgh, Hawick, Lockerbie, Newburgh, and Killin.

Though his work may not have attained to the higher flights of artistry it was always thoroughly capable, well informed, and eminently sensible. He kept himself fully abreast of the most recent developments in design and construction, and that he retained his virility to the end is evidenced by the prominent place he obtained in the important competitions for which he entered within the past few years, being premiated in those for the Legal and General Insurance Company's Offices, Glasgow, and the Town Hall and Library, Leith; honourably mentioned in that for the extensive Masonic School at Rickmansworth, and successful in that for the new George Watson's Secondary School, Edinburgh, the building of which is still in progress.

The appreciation of and the high esteem in which he was held by his professional and artistic brethren is shown by his election as president of the Edinburgh Architectural Association in the two sessions of 1910 and 1911, and his election as an Associate of the Royal Scottish Academy in 1918, and an Academician in 1930. For a number of years he was one of the Academy's representatives on the governing board of the Edinburgh College of Art, where his sound knowledge of the practical requirements of an architect's training and his deep personal interest in seeing these carried out in the school curriculum were specially helpful. He had a keen appreciation of the best qualities in pictorial art, and was a discriminating buyer as well as adviser to other purchasers. In this, and in other ways as well, he was a good friend to his fellow artists, many of whom will miss his timely aid.

His principal recreations were fishing and gardening, and of the latter—especially of rock gardens—he had expert knowledge and was justly proud of his achievements in that pursuit. Of a generous and happy temperament, his cheerful presence and genial companionship were highly prized by a wide circle of friends who deeply mourn his loss.

Mr. Dunn is survived by a widow, two daughters, and a son, Herbert G. Dunn, who in partnership with Mr. G. L. Martin, principal assistant for some years, will carry on the business.

#### WILLIAM GILLBEE SCOTT [F.]

William Gillbee Scott, born 1857, died on 31 August after a short illness. After serving his articles with Messrs. Habershon and Brock, he entered the office of Mr. Ewan Christian, where he remained until he started practice.

He won the Institute silver medal for measured drawings in 1877, was elected Associate in 1881, and Fellow in 1891, and carried on an extensive general practice, latterly in partnership with his son, B. W. H. Scott [F.]. His executed works comprise numerous churches, schools, private houses, business premises and large factories, and he was also successful in several competitions for schools, churches, and swimming baths. On account of his sound, practical experience he was often retained to give expert evidence in the Courts, as well as being frequently appointed arbitrator in building disputes. He was a past president of the Institute of Arbitrators.

Mr. Gillbee Scott was perhaps better known for his numerous activities at the R.I.B.A., of which the writer of these inadequate lines can bear testimony. It was a point of honour with him to attend regularly on the numerous committees to which he was appointed, where he expressed his views very forcibly, and whilst a hard and enthusiastic fighter for his ideals and for what he conceived to be in the best interests of the profession, he always extended a kindly consideration to his opponents.

From the first he identified himself strenuously with the Registration movement and served continuously on the committees furthering this object. Competition reform also engaged his attention in his earlier career until the object was achieved, resulting in the present conditions. Our present Scale of Charges was largely his work in committee, which he afterwards piloted through the general meetings in face of much opposition, and he was a member of the present committee who have recently completed a revision of our Scale of Charges that will shortly, it is hoped, be put in operation.

The recently proposed new Form of Contract was strongly criticised and strenuously opposed by Mr. Gillbee Scott at every opportunity.

Mr. Gillbee Scott was a member of the Council and several of its committees for five years and served for 12 years on the Practice Standing Committee.

A rather brusque and reserved manner tended to conceal his ardent love for his profession, for its advancement and for its public recognition in matters of professional interest, and many will join with me in paying tribute to the advice and experience given to those who sought his counsel.

J. DOUGLAS SCOTT [A.]

#### ATELIER.

Mr. Arthur Davis, F.R.I.B.A., has again kindly consented to help in the formation of an atelier for the study of architecture, and to be the patron and critic, provided there proves to be enough support. Would all those who are interested in this, inform Mr. G. G. Clark, c/o Mawes and Davis, 22 Conduit Street, W.1, from whom any further information can be had.



## THE LONDON BUILDING ACT, 1930.

The Royal Assent was given to the new London Building Act on 1 August, and it comes into effect on 1 October. It applies to London only, and is largely a consolidating measure clearing up many points that have been under discussion for some time. Among the subjects dealt with are the formation and widening of streets; the lines of building frontage; open spaces about buildings and the height of buildings (which is still limited to 80 feet); construction of buildings; means of escape in case of fire; rights of building and adjoining owners; dangerous and neglected structures; dangerous and noxious businesses; by-laws; and legal proceedings. Six schedules are appended dealing with fire-resisting materials, construction and thickness of walls, rolled steel and generally skeleton framework, fees payable to council, fees payable to district surveyors, and enactments repealed.

## HEIGHT OF LONDON BUILDINGS

## REPORT OF CONFERENCE

The height of buildings in London is the subject of an interim report issued as a result of a conference between representatives of the London Society, the Royal Institute of British Architects, and the Town Planning Institute. The report has been accepted by the council of the London Society, and is now under consideration by the R.L.B.A. and the Town Planning Institute.

The report states that the conference entirely agrees with a resolution by the council of the R.L.B.A. to the effect that no general relaxation should be permitted in the conditions governing the height of buildings in London, and is further of opinion that it is of the utmost importance that steps should be taken immediately to regulate the increase of height and volume of new building that is possible under existing conditions.

The reasons given by the conference for arriving at this conclusion are as follows:—

(a) The present regulations limiting the height of buildings in narrow streets, even when reinforced by the common law rights of light, are not effective in securing reasonable conditions because building owners, by agreement with the owners of property opposite or by the purchase of their property, are able to build up to the maximum height permitted under the London Building Act on each side of these narrow streets.

(b) Over wide areas surrounding the district known as the City under existing regulations new buildings can be erected which would increase the mass, density, and floor area to three or four times those of the buildings at present there, and without provision for any increase in the width of the existing streets.

(c) There is a distinct ratio between street capacity to accommodate vehicular and pedestrian traffic and the floor area of the buildings which those streets serve.

The conference urges that the height of buildings should be regulated by the actual adequacy of light and air to the buildings instead of merely by private rights without regard to such adequacy; and by the relation between the extent and character of buildings and the adequacy of the streets to carry the resulting traffic.

Not only should the London Building Act be amended, but it is essential that a comprehensive zoning scheme and plan should also be prepared and adopted to regulate mass, density, and use in connection with the rebuilding of London. This zoning ordinance should make it clear that building up to the present accepted limit of 80 feet and two storeys in the roof will be limited to certain central districts, subject to non-inter-

ference with reasonable light and air. Outside these districts zones of diminishing heights and density should be prescribed, and the scheme and plan should include definite provision for:—

(a) The regulation of heights and floor space of buildings in relation to the width of streets and the amount of light and air required for the class of user;

(b) Historic areas;

(c) The neighbourhood of important buildings (whether ancient or modern), such as St. Paul's Cathedral, Westminster Abbey, the Law Courts, the Houses of Parliament, the London County Hall, etc., because without such precautions there is grave danger that the scale of public buildings may be rendered insignificant by the erection of high buildings in close proximity to them, while there is also the possible danger to their foundations owing to excavations for deeper basements.

In a city such as London only wide streets and big lots can carry buildings from 80 feet to 100 feet high, but if a comprehensive zoning scheme were prepared the conference would see no serious objection to permission being granted, under certain well-defined conditions, for part of the occupied portion of a new building to exceed the statutory limit of height aimed for any particular district, provided always that:—

(a) No increase in total volume and floor space over and above that zoned for the area is thereby obtained.

(b) Effective protection from fire is assured.

(c) Adequate protection is given to the rights of surrounding owners to their fair share of light and air.

(d) A reasonable uniform cornice level is maintained in certain classes of streets.

The conference believes that by the adoption of such a policy more latitude could be given to designers within ultimate limits, with a resultant gain in the quality of the buildings erected in the various districts. The conference draws special attention to the fact that in these latitudes the maximum angle of the sun in winter is only 25 degrees. An angle of 45 degrees thus cuts off the light of the sun for a period of six months.

The suggestion is made that the volume and floor space of new buildings would probably be best regulated in proportion to the length of frontage enjoyed rather than by the depth of the site; and also that the erection of high buildings on small lots in narrow streets should be forbidden pending the preparation of a development plan for the whole area.

While the conference does not criticise detail variations of the height regulations which are intended to meet difficulties due to special circumstances (provided that they do not involve any increase in the total volume or general bulk of the buildings concerned), it is definitely of opinion that the mere fact that a new building faces a large existing open space, such as a park, square, or river in no way justifies any special increase in height. Such increase given to the owners adjacent to the open space an additional value to which they have no special claim, and enables them to deprive owners behind of their fair share of benefit. On the contrary, the existence of an open space, the benefit of which over low frontage buildings has long been enjoyed by neighbouring owners, lying behind or adjacent, would seem to constitute a valid reason for specially limiting the increase of height which may be permitted on the sites fronting the said open space.

The conference is further of opinion that a definite scale should be laid down to govern the width of streets, having regard to the use of the neighbourhoods they serve. If any material enlargement of floor space over and above that existing or planned for a district is proposed, then the proposer should be required to provide or contribute to the provision of equivalent space to cope with the additional traffic which is likely to be engendered and to prevent any diminution in the amount of natural light and air available.



## STEEL STRUCTURES RESEARCH COMMITTEE.

The following letter has been received from the Department of Scientific and Industrial Research:—

DEPARTMENT OF SCIENTIFIC AND INDUSTRIAL RESEARCH.  
Building Research Station,  
Bucknall's Lane,  
Garston,  
Watford, Herts.

## STEEL STRUCTURES RESEARCH COMMITTEE.

Sir,—I am directed to inform you that the Department of Scientific and Industrial Research has appointed a Steel Structures Research Committee with the following terms of reference:—

- (1) To review present methods and regulations for the design of steel structures, including bridges.
- (2) To investigate the application of modern theory of structures to the design of steel structures, including bridges, and to make recommendations for the translation to practice of such of the results as would appear to lead to more efficient and economical design.

The Chairman of the Committee is Sir Clement Hindley, M.Inst.C.E., M.Inst.T., and the membership comprises Mr. D. Anderson, M.Inst.C.E., Mr. R. Freeman, M.Inst.C.E., and Mr. B. L. Hurst, M.Inst.C.E., M.I.Mech.E. (nominated by the Institution of Civil Engineers); Commander W. R. Gilbert, Mr. J. H. Humphreys, Mr. J. E. James, Mr. C. J. Kavanagh, O.B.E., Mr. J. D. Stitt (nominated by the British Steelwork Association); Professor C. Barbo, D.Sc., A.M.Inst.C.E., Professor Sir Harold Carpenter, F.R.S., Dr. O. Faber, O.B.E., D.Sc., M.Inst.C.E., Mr. G. Topham Forrest, F.R.I.B.A., Mr. Conrad Gribble, M.Inst.C.E., Professor C. E. Inglis, O.B.E., M.Inst.C.E., F.R.S., Lt.-Col. J. Mitchell Moncrieff, C.B.E., Professor A. J. S. Pippard, M.B.E., D.Sc., M.Inst.C.E., M.I.Mech.E., Professor A. Robertson, D.Sc., M.Inst.C.E., M.I.Mech.E., Professor R. V. Southwell, F.R.S. The Executive Officer to the Committee is Dr. R. E. Stradling, M.C., D.Sc., Ph.D., M.Inst.C.E., Director, Building Research Station, Garston, Herts.

The Committee hope to be able to prepare an interim report setting out some rules of practice which might be generally adopted in the light of existing technical knowledge.

The Committee's report would merely be a preliminary—since there are many directions in which research work must be undertaken—but it is hoped that it would serve in the meantime as a guide on certain points and provide a basis for a uniform code throughout the country. The drafting of this report will shortly be begun.

The Committee are taking steps to secure the assistance of the Local Authorities likely to be concerned. They already possess the support of the Institution of Civil Engineers, of the Institution of Structural Engineers, and the Institution of Municipal and County Engineers, and it would be a great help if they could similarly have the co-operation of other professional and technical organisations. I am accordingly to inquire whether you would be good enough to arrange for the Committee to receive any suggestions members of your Institute may wish to offer for consideration in connection with the Committee's interim report. Such data as they possess, for example, in relation to actual floor and walling loads, which might serve as a basis for revised practice would be very welcome.

I am, Sir,

Your obedient servant,

(Signed) A. ZAMMAN.

The Secretary,  
Royal Institute of British Architects,  
9, Conduit Street, W.1.

Secretary to the Committee.

The Science Standing Committee will be glad to receive any suggestions and data which members may wish to submit for transmission to the Steel Structures Research Committee.

## INDEX OF ARCHITECTURAL RECORDS.

A Committee representing the Royal Archaeological Society, the Royal Institute of British Architects, the London Survey Committee, and the Society for the Protection of Ancient Buildings has been formed to explore the possibility of compiling a central card index of prints, drawings, and other architectural records. It is felt that this should be of great assistance to those engaged upon the repair of old buildings, to writers of architectural, archaeological or topographical works, and to students generally.

If it should meet with success it is not unlikely that it would be developed to include some means of storing such records in a central and safe place, should they be loaned, offered, or bequeathed.

It is proposed to limit the scope of the Committee's work to buildings at least a century old, and to those of England only, but it is hoped that parallel action will be undertaken in Scotland and Wales.

It is realised that an immense amount of such records are in private hands, and it would be useful to the Committee if owners would give particulars of their collections now, for with this knowledge the Committee will be better able to form an idea of the extent and scope of the enterprise.—A. R. Powys (S.P.A.B.), 20 Buckingham Street, W.C.2.

## TOWN PLANNING INSTITUTE.

The Twelfth Annual Country Meeting of the Town Planning Institute will be held at Leicester, from Thursday the 2nd, till Sunday the 3th October 1930, under the Presidency of Mr. F. W. Platt, F.S.I.

The inaugural meeting will be held in the Council Chamber at the Town Hall by kind invitation of the Lord Mayor (Councillor W. E. Hincks, O.B.E., J.P.) and Corporation of Leicester. An address will be given by Mr. H. A. Pritchard, Town Clerk, on the "Development of the City Historically and otherwise," which will be followed by a paper by Mr. A. T. Gooseman, M.Inst.C.E., M.T.P.I., City Engineer and Surveyor, entitled "Town Planning of Leicester and Its Surroundings."

A programme of motor coach visits has been arranged and the Institute Dinner will be held at the Bell Hotel, on Saturday the 4th.

Members who wish to attend the meeting should write to the Secretary, Town Planning Institute, 11 Arundel Street, Strand, London, W.C.2.

## THE LIBRARY ASSOCIATION.

Mr. Theodore Tyfe [F.] will represent the Institute at the Fifty-third Annual Conference of the Library Association which is to be held at Cambridge from 22 to 27 September.



# Allied Societies

*(The attention of Members of the Allied Societies is particularly called to this page)*

## EAST AFRICA INSTITUTE OF ARCHITECTS

Members of the East Africa Institute of Architects entertained a large number of guests at the annual dinner of the Institute in the Nairobi Club on Friday, 25 July.

The President, Mr. C. Rand Overy, was in the chair, this being the third time in succession he has presided over this function. At the annual meeting of the Institute earlier in the day, Mr. Harold E. Henderson was appointed President of the Institute.

The toast of the "Royal Institute of British Architects" was proposed by Mr. H. E. Henderson who spoke of the influence and ideals of the R.I.B.A. which the members of the local Society were trying to perpetuate in East Africa. He coupled the toast with the name of Mr. William Dunn, recalling that the latter was selected as one of the experts in the work of the restoration of St. Paul's Cathedral.

Mr. Dunn replied on behalf of the R.I.B.A. He said the R.I.B.A. set a high standard of service and conduct. Looking about him in Nairobi after seventeen years' experience of the Colony he could say to-day that local architects were evolving order out of chaos and making the Capital a place of which citizens might be proud.

The Hon. H. E. Goodshup, Acting General Manager of the Railways, proposed the toast of the East Africa Institute of Architects and recalled the "architects" of Nairobi in 1908 when Messrs. Rand Overy and Geater were the only architects in the country. He said he had served under twelve General Managers of the Railway in that time and in a reference to public buildings generally reminded his hearers of the fact that the Supreme Court of the Colony was held at one time in a slating rink where the Chief Justice had to sit with a helmet on top of his wig to protect himself from the rays of the sun which came in through a hole directly over his head.

Mr. C. Rand Overy replied. He said that many noteworthy buildings had been erected since the last annual dinner, although unfortunately they were not indicative of a general prosperity. He mentioned that Mr. Henderson, the new President, was largely responsible for the formation of the local Society in 1913 and that Mr. Geater had been its first head. He referred to the attempt made by the Institute to secure legislation providing for the registration of qualified architects and he expressed his thanks to the Attorney-General (who regrettably was unable to attend that evening) for the interest he had taken in the matter. He also mentioned that the architects in the country were entering largely into the public service on town planning boards and other organisations and regretted that the Government had not adopted the practice of instituting open competitions for designs for the public buildings of the Colony.

The toast of "The Guests" was proposed by Mr. F. C. Brille and Dr. J. L. Gilkes, the Director of Medical Services, replied. Other speakers were Mr. Lewis, on behalf of builders and contractors, His Honour the Acting Chief Justice, Judge Stephens, His Worship the Mayor, Councillor Udall, and the Dean of Nairobi, the Very Rev. W. J. Wright.

The cover of the menu represented an attractively drawn view of the Fort at Mombasa by Mr. C. A. Jackson.

## MANCHESTER SOCIETY OF ARCHITECTS

Members of the society paid an evening summer visit, on Wednesday, 27 August, to the Belmont Homes at Cheshire, near Manchester, where several blocks of buildings have been designed by Messrs. Taylor and Young, architects, members of the society.

The buildings consist of the houses in which the children live, each home providing accommodation for twenty children, and a sanatorium and a playroom.

A very interesting evening was occupied in looking over a delightful group of buildings.

## SINGAPORE SOCIETY OF ARCHITECTS

The First Annual Dinner of the Singapore Society of Architects (Incorporated) took place at Raffles Hotel, on Saturday, 2 August, 1930, when the chair was occupied by the President, Mr. A. Gordon, F.R.I.B.A.

Following the toast of "His Majesty the King."

The President (Mr. Gordon), proposing the toast of "Our Guests" said:—

"The Singapore Society of Architects was founded in 1922, and it was the means of obtaining Registration for Architects in the Straits Settlements, which has had much to do with the improvement that is evident to-day in the majority of our new buildings.

"The Society as you all probably know is affiliated to the Royal Institute of British Architects, and during the last four years examinations have been held here for the Associateship; but the Society would like to see in the near future a School of Architecture attached to Raffles College where local architects could obtain the necessary training to qualify them to sit for the Institute's examinations.

"One of our main objects is to obtain uniformity of the Building Bye-laws in the three Settlements. At present a Singapore architect may have the local Bye-laws by heart, but if he gets a job in Penang or Malacca he has to learn a new set of Bye-laws all over again.

"I want to say that Singapore architects of to-day have been given great opportunities of improving the architecture of the town. The Improvement Trust with the Government and Municipality behind it are planning a new Singapore, and new roads are being built to provide for expansion, and the old shophouses are being demolished in the congested areas. Now we architects must not be found wanting. The replacement buildings especially must be worthy of the new Singapore, and our architects must build up a town that future generations will be proud of, not only for its civic planning but also for the architecture of its buildings. It is very encouraging to see that the new expansion areas are being developed on new lines, and that the old shophouse tradition is dying out."

Mr. John Scott (the Colonial Secretary) in the course of his reply said:—

"If I may sound a personal note for a moment or two I would like to say that I have always taken a very great interest in architecture and I feel very proud to belong to a family which produced such well-known architects as Mr. Gilbert Scott, now many years dead; his more famous and brilliant grandson, Sir Giles Scott, the architect of Liverpool Cathedral; and also I think I may claim relationship with the talented lady who designed the Shakespeare Memorial Theatre at Stratford-on-Avon. As a corollary I accepted the invitation of the Singapore Society of Architects to be present at their dinner to-night.

Your Society, as your President has said, has been in being for about eight years. I have come to the conclusion that it is in a flourishing condition because you are holding an Annual Dinner. I think that is one of the signs of prosperity, and a very good sign too.



"I am privileged to receive every month a copy of the admirable Journal which your Society publishes, and for which, I believe, Mr. Wilson is responsible as editor. I read it with considerable interest, even though I may not be able to understand all the technicalities of hip roofs, for instance. At the same time the Journal is another indication of the flourishing condition of the Society. If any further indication is required your President has mentioned to-night the fact that branches are springing up all over the country. They have been started at Kuala Lumpur and also at Ipoh and Penang, and I hope you will see, before very long, the formation of a Malayan Society of Architects."

#### INSTITUTE OF SOUTHERN RHODESIAN ARCHITECTS.

A number of Bulawayo architects travelled to Salisbury, where they met the local architects in a general meeting at the Grand Hotel, Salisbury, and elected the first council of the Institute of Southern Rhodesian Architects, a body corporate established under the Architects (Private) Act of 1929, thus beginning a new page in the architectural history of Rhodesia. Never before have so many architects met together in Southern Rhodesia to discuss matters appertaining to their profession.

The ballot resulted in the election of Mr. D. MacGillivray, M.I.A., of Bulawayo, as President, and Mr. F. A. Jaffray, L.R.I.B.A., M.I.A., of Salisbury, as Vice-president of the Institute, with Messrs. W. D'Arcy Cathcart, F.R.I.B.A., S. A. Cowper, M.C., F.I.A.A., J. R. Hobson, M.C., F.R.I.B.A., J. D. Robertson, L.R.I.B.A., and W. J. Whitesides, A.R.I.B.A., as members of the Council. Mr. E. Pallett, F.I.A.A., was elected as the honorary secretary and registrar of the Institute.

The new council will shortly take over from the Inaugural Board appointed by the Government, and the Institute will then manage its affairs under the Architects Act and the regulations drawn up by the Inaugural Board. The Board is to be highly commended upon the results of their labours. Its regulations, which have now become law, have been described by competent authorities as being most comprehensive and efficient.

On 12 July the architects entertained the Colonial Secretary and members of the Inaugural Board to dinner at the Grand Hotel.

The toast of "The King," proposed by the Institute's new President and heartily responded to, was followed by "The Government," proposed by Mr. Whitesides, who explained how the Government had sympathetically taken up the architects' request for the registration of architects and had passed the Architects (Private) Act, 1929. He coupled with the toast the name of the Colonial Secretary, who was closely associated with the administration of the Act.

In reply, Mr. W. M. Leggate (Colonial Secretary) pointed out that had the Government not considered the Act good and very necessary in the interests of the country, the measure would not have been made law. He showed how the development of civilisation was closely interwoven with the development of architecture, as portrayed by the gigantic and magnificent buildings which remain as relics of the ancient nations of the world at the zenith of their civilised development.

Rhodesian architects to-day were erecting many fine buildings compared with the buildings erected in the early days of the country. This was all to the credit of Rhodesian architects, and was significant of the progress Rhodesia was making at the present day.

Mr. J. A. Cope Christie, F.R.I.B.A., proposed the toast of "The Inaugural Board." Major R. H. Everett, C.B.E., chairman of the Board, replied and commended the rather unusual action of the architectural profession of Rhodesia who, when drafting their Bill, made the provision that the regulations which would govern them under their Act should be drawn up by a board selected by the Government, the majority of whom need not be members of the architectural profession. This public interests were safeguarded as well as the interests of the profession.

Captain W. E. Thomas, M.C., B.A., L.L.B., also responded to the toast.

Mr. J. R. Hobson, M.C., F.R.I.B.A., proposed "Our Guests," to which Mr. Leggate and Major R. H. Everett, C.B.E., replied, while Captain Thomas proposed "The New Institute."

The newly-appointed President of the Institute, Mr. MacGillivray, replied, calling attention to the splendid spirit of unity and good fellowship existing between all members of the profession throughout Rhodesia, which had enabled Rhodesian architects to forge ahead and establish themselves comparatively early in the country's career of national responsibility, thereby avoiding the unfortunate jealousy and hand-capping prejudices which had grown up between the architectural profession and many of its associated professions in the older countries of the Empire.

Having obtained the recognition sought for, it was incumbent upon the architects of Rhodesia to see that the true spirit of honour and integrity which inspired the founding of the new Institute was strictly maintained and further developed in all future activities of the profession.

The new Vice-president, Mr. Jaffray, also briefly responded. He proposed "The Retiring President of the late Institute," Mr. Cathcart, F.R.I.B.A., who replied.

#### NOTES FROM THE MINUTES OF THE COUNCIL.

21 July 1930.

##### R.I.B.A. PREMISES COMPETITION: APPOINTMENT OF JURY OF ASSESSORS.

The Council unanimously approved the list of the Jury of Assessors prepared and recommended by the President. The names of the Assessors are—

Sir Giles Gilbert Scott, R.A. [F.]  
Dr. Percy Worthington, F.S.A. [F.]  
Mr. H. V. Lanchester [F.]  
Mr. Robert Atkinson [F.]  
Mr. Charles H. Holden [F.]

##### THE R.I.B.A. (HENRY JARVIS) STUDENTSHIP AT THE ARCHITECTURAL ASSOCIATION SCHOOL OF ARCHITECTURE, 1930.

The Board of Architectural Education reported that in the competition for this Studentship, conducted at the Architectural Association School of Architecture, two students, Mr. D. C. McDonald and Mr. A. V. Nunn, were placed first, and that, as a matter of urgency, they had approved the division of this Studentship of £50 between the two students, £25 being awarded to Mr. D. C. McDonald and £25 to Mr. A. V. Nunn.

##### THE R.I.B.A. MAINTENANCE SCHOLARSHIPS COMMITTEE.

It was decided, on the recommendation of the Board of Architectural Education, to appoint the Chairman of the Allied Societies' Conference as an ex-officio member of the Maintenance Scholarships Committee.

##### THE NEW R.I.B.A. BYE-LAWS.

It was formally reported to the Council that the Privy Council had approved the new R.I.B.A. Bye-laws.

##### REVISION OF BUILDING REGULATIONS.

The London Building Acts Committee reported that a Conference had been held with representatives of the other bodies interested in the revision of building regulations, and that it was hoped to arrange a deputation to the Minister of Health at an early date.

The London Building Acts Committee were empowered to act on behalf of the Council in this matter during the



recess and to take such action as might be necessary in making any representations or submitting any joint report as might be agreed upon by the bodies concerned to the Ministry of Health and the L.C.C.

#### THE CODE OF PROFESSIONAL PRACTICE.

It was decided, on the recommendation of the Practice Standing Committee, to amend the first paragraph of Clause 3 of the Code of Professional Practice to read as follows:—

"An Architect must not advertise nor offer his services by means of circulars or otherwise."

#### REVISION OF R.I.B.A. SCALE OF CHARGES.

The revised Scale of Charges, as recommended by the Special Committee on the Scale of Charges and the Practice Standing Committee, was provisionally approved, and will, subject to the terms of By-law 38, be submitted for ratification at the Council Meeting on 20 October.

#### R.I.B.A. PROBATIONERS.

During the month of July, 1930, the following were registered as Probationers of the Royal Institute:—

ABNEY: GEOFFREY, 4 Victoria Square, Jesmond, Newcastle-upon-Tyne.  
 ALLAN: ALFRED EASTON, 39 Queen's Road, Aberdeen.  
 ALLEYN: JUSTICE HENRY, Highlands, Shiplake, Oxon.  
 ATKINSON: WALTER WARNE, 71 Corinne Road, Tufnell Park, N.19.  
 BAILEY: THOMAS AUBREY, "Elberfeld," 24 Belmont Road, West Green, N.15.  
 BALL: BASIL CURTIS, 53 Hanton Road, Erdington, Birmingham.  
 BANNISTER: EDWARD JAMES THOMAS, 21 Castle Road, Gray's, Essex.  
 BOOTH: FREDERICK HARRY, "Sunnyside," Sawmills, nr. Ambergate, Derby.  
 BOTT: DORIS MAY, 35 St. Aldates, Oxford.  
 BRETT: REYNOLDS KEEN, Anglebay, Colehill, Wimborne, Dorset.  
 BRIGGS: OLIVE GERTRUDE VERNON, 29 Arthur Road, Hampstead, N.W.3.  
 CAMPBELL: HUGH JOHN, 40 Mill Street, Montrose, Angus.  
 CARTER: RICHARD, "Thistles," Tilmore, Petersfield, Hants.  
 CULT: CHARLES FRANCIS, Berghenden, nr. Ashford, Kent.  
 DALLAS: HORMAZDIAR NANSHEEDWAN, Kathoke Lodge, 116 Main Road, Dadar, Bombay, India.  
 D'AVOINE: PIERRE AVICENNA, 3 Morland Road, Byculla, Bombay, India.  
 DODD: DUNCAN MIDDLETON, 1 Saint Domingo Grove, Liverpool.  
 DUFFY: ARTHUR RICHARD, 32, Lancaster Road, Birkdale, Southport.  
 EARDLEY: IVAN, Broadways, Sneyd Avenue, Newcastle-under-Lyme.  
 ELLIS: GORDON, 26 Roulson Road, Didsbury, Manchester.  
 ELVINS: CHARLES FRANCIS, "Shirley," Cross Deep, Twickenham, Middlesex.  
 FERNANDES: JOHN BURCHMANS, 58 Khoja's Quater, Girgaum, Bombay, India.  
 FISH: HENRY, 55 High Street, Aldgate, E.C.3.  
 FOX: JOHN MICHAEL, Burnham House, Newport, Barnstaple.  
 FOX: RICHARD HENRY, Hill Farm, Aldcliffe, Lancaster.  
 FURNIS: MARTIN DONVILLE, 128, The Villas, Palmers Green, N.  
 FYPE: CLARKE, Traquair Place, Wishaw, Scotland.  
 GAUNT: ALBERT WILLIAM, 54 South Parade, Pudsey, Leeds.  
 GEAR: ARTHUR HENRY, 12 St. David's Place, Park Road, Hendon, Middlesex, N.W.4.

HAMP: ETHEL MARY, 19 Russell Road, Kennington, W.14.  
 HILL: DONALD ROBERT, "Lorraine," Lutterworth Road, Nuneaton.  
 HILTON: JOHN ROBERT, 10 Eastbury Road, Northwood, Middlesex.  
 HODGSON: JOHN ERNEST, 15 Meredyth Road, Bromley, S.W.13.  
 HOLGATE: JOHN WILLIAM HILTON, 53 Redgrave Street, Oldham, Lancs.  
 HUDDLES: NORMAN CECIL, "Chinthe," Entbrook, Wokingham, Berkshire.  
 HUNT: WILLIAM THOMAS, 89, All Souls Avenue, Harlesden, N.W.10.  
 HURST: JAMES, 25 Woodland Ravine, Scarborough, Yorks.  
 JENSEN: ROLF ARTHUR, 20 Gordon Road, Wallasey, Cheshire.  
 KAHAWITA: DON WILFRED RICHARD, c/o B. Picchierotti, Via Adige 30, Roma 36, Italy.  
 KERRIE: HERBERT VICTOR, 36 Milton Road, Stowmarket, Suffolk.  
 LAIDLAR: GAVIN GRAHAM, 6 Osborne Avenue, Newcastle-on-Tyne.  
 LEE: FREDERICK CECIL BRIGGS HARDY, "Ormsby," Raleigh Drive, Esher, Surrey.  
 LOMAX: RICHARD FRANKLIN, 30 Tilloson Road, N.9.  
 MINNIBALL: MERLIN THEODORE, 9 Melbury Road, Kennington, W.14.  
 MITCHELL: ALLAN HAWTHORN, 32 Kennington Gardens Square, London, W.2.  
 MOKENA: NGISHI BURJOUJI, 16 Bhivandiyals Terrace, Dhobi Lalao, Bombay, India.  
 NISSET: ARTHUR GEORGE, 3 Meldrum Road, Goodmayes, Essex.  
 OWTMAN: ROSCOE HERBERT, 18 Grove Park Gardens, London, W.4.  
 PALMER: NORMAN, 103 Holmhurst Road, Woodseats, Sheffield.  
 PALMER: RALPH COLCHESTER, "Leydensdene," Vicarage Gardens, Clacton-on-Sea.  
 PRIOR: ALFRED JEFFRIES, 11 Kenilworth Court, Putney, S.W.15.  
 ROWS: IAIN PARK, School of Architecture, University of Liverpool, Liverpool.  
 SANDERS: GEORGE THOMAS BALE, "Rosa Leigh," Kings Avenue, Greenford, Middlesex.  
 SCHOFIELD: JAMES, 8 Emerald Cottages, Holcombe Brook, nr. Bury, Lancs.  
 TARRANT: GEORGE VICTOR, Eastfield, Wentworth, Virginia Water, Surrey.  
 UREN: REGINALD HAROLD, c/o Architectural Association, 34-36, Bedford Square, W.C.1.  
 WALKER: VIOLET GERTRUDE, 46 Hill Top Road, Oxford.  
 WALKER: WILLIAM CALE, Elmore, 261 Victoria Road, Aberdeen.  
 WALLACE: ALASTAIR FREW, Solgirth, Kirkcaldy, Fife.  
 WEEKES: MARGARET, "Fernleigh," Fernleigh Road, Plymouth.  
 WEST: RONALD EDWARD, 66 Lock Road, Ham, Surrey.  
 WILLIAMS: ARTHUR LLEWELYN, 3 Baladerlyn Terrace, Nantlle, Pen-y-groes, Caernarfonshire, N. Wales.  
 YOUNG: RICHARD ARTHUR, 87 London Road, Chesham, Essex.

#### THE EXAMINATIONS.

July 1930.

##### THE FINAL EXAMINATION.

The Final Examination qualifying for candidature as Associate R.I.B.A. was held in London and Edinburgh from the 9th to 17th July, 1930.

Of the 99 candidates examined 46 passed (8 in Part 1 only) and 53 were relegated.

The successful candidates are as follows:—



Harold Billiards, Lionel Bintley, Frank Ivor Bowden, Thomas Burrington, Reginald William Gase Cooper, Wilfred Shimmis Corlett, Horace Charles Couldrick, Ernest Edwin Davis, Bhicaji Edulji Doctor (*Part 1 only*), Harold Harper Ellis, Henry Collingwood Farmer, George Ford, Hugh Hubbard Ford, Kenneth William Furneaux Harris, James Stanley Hartley (*Distinction in Thesis*), Percy Pithe Henderson, Robert Charles Hamilton Hinton, Stanley Allen Hurden, Alan Connor Johnston, Vincent Alphonsus Jolley, William Charles Kemp, Albert William Royal Kendrick (*Part 1 only*), Geoffrey Montague Kingsford, Gerald Auguste Charles Lacoste, Alexander Hodge Livingstone (*Part 1 only*), David Francis Lunley, Hedley Bernard Marshall, Matthew Maybury, Frank Mellor, Harold Mileson (*Part 1 only*), Amnon Vivien Pilchowski (*Part 1 only*), Franklin Murray Polson, Arthur John Rea, Israel Schultz, Robert White Sherwin (*Part 1 only*), Alfred Smith, John James Smith, Stephen Frederic Edmund Soper, Eric Thompson, Jack Ransom Tolson, William Leslie Twigg, Alfred Underhill (*Part 1 only*), Olwen Vaughan, Lesslie Kenyon Watson, Siriol Williams, Aaron Writer (*Part 1 only*).

#### THE SPECIAL EXAMINATION.

The Special Examination qualifying for candidature as Associate R.I.B.A. was held in London from the 9th to 15th July.

Of the 22 candidates examined, 11 passed (1 in Part 1 only) and 11 were relegated.

The successful candidates are as follows:—

Frederick Reginald Elleray, Robert Oliver Harris, William Thomas Lloyd, Arthur Peel, Walter Clarence Perlee, George Frederick Rowe, Cyril James Tomkins, Hubert Locksley Waugh, Francis Howard Hippisley Webb, Wilfrid Hurford Wingate, William Worrall (*Part 1 only*).

THE EXAMINATION IN PROFESSIONAL PRACTICE FOR STUDENTS OF SCHOOLS OF ARCHITECTURE RECOGNISED FOR EXEMPTION FROM THE R.I.B.A. FINAL EXAMINATION.

The Examination was held in London and Edinburgh on the 15th and 17th July, 1930. Of the 63 candidates examined 50 passed and 13 were relegated.

The successful candidates are as follows:—

Francis Keith Aitken, William George Deane Anderson, Syed Ali Asghar, Charles Sherlock Bevan, John William Bishop, Stephen Ernest Dykes Bower, Margaret Brash Brodie, Percy Graham Budgen, David Rodney Burles, Leslie Arthur Chackett, Margaret C. Challen, Herbert George Coulter, Morton John Heddell Cowie, George Leslie Cruickshank, Daniel Michael Duggan, John Homery Folkes, Eric Godfrey Gardner, Robert Claude Gifford, Norman Douglas Good, Fergus Colesworthey Gregor Grant, Annie Elizabeth Hall, Peter John Blundell Harland, Richard Frederick Henniker, Douglas William Innes, William Dalton Ironside, Geoffrey Hart Jackson, Herbert Jackson, Lawrence Edward King, Him Sau Luke, Geoffrey James Monroe, Douglas Eric Nightingale, John Verney Nisbet, Richard Meroyn Noad, William John Arthur Osburn, John William Parr, Hamish Noble Paterson, Edward Playne, William James Reith, Leonard Francis Richards, James Rattray Riddell, Charles

Alexander Rose, Maung Tun Sein, Robert Barney Jack Selby, Marion Mitchell Shaw, Norman Stephen, James Alan Stewart, Carl August Emil Thatcher, William Caie Walker, John Craven Wilson, Francis Reginald Stevens Yorke.

#### R.I.B.A. EXAMINATIONS, MAY, JUNE AND JULY, 1930.

The questions set at the Intermediate, Final and Special Examinations held in May, June and July, 1930, have been published, and are on sale at the Royal Institute, price 1s. (exclusive of postage).

#### R.I.B.A. FINAL EXAMINATION: INDIA

The R.I.B.A. Examination Board in India have arranged to hold the R.I.B.A. Final Examination in Bombay from 29 October to 6 November 1930. The last day for receiving applications, which should be sent to the Hon. Secretary of the R.I.B.A. Examination Board in India, 43, Apollo Street, Fort, Bombay, is the 3rd October.

#### R.I.B.A. STATUTORY EXAMINATION FOR THE OFFICE OF DISTRICT SURVEYOR AND THE EXAMINATION FOR THE OFFICE OF BUILDING SURVEYOR

The R.I.B.A. Statutory Examination for the office of District Surveyor under the London Building Acts, and the Examination for the office of Building Surveyor under Local Authorities will be held at the R.I.B.A., London, on 15, 16 and 17 October 1930.

The closing date for receiving applications for admission to the Examinations, accompanied by the fee of £1 3s. is 24 September.

Full particulars of the Examinations and application forms can be obtained from the Secretary R.I.B.A.

#### R.I.B.A. (ARCHIBALD DAWNAY) SCHOLARSHIPS

The works submitted by candidates for the R.I.B.A. (Archibald Dawnay) Scholarships will be on exhibition in the R.I.B.A. Galleries, 9 Conduit Street, London, W.1, from Friday, 19 September, to Tuesday, 30 September 1930, inclusive. The exhibition will be open between the hours of 10 a.m. and 7 p.m. (Saturdays 10 a.m. and 2 p.m.)

The Scholarships are intended to foster the advanced study of all forms of construction and are tenable at the Schools of Architecture recognised for exemption from the Examinations of the Royal Institute of British Architects.

## Notices

#### REVISION OF THE R.I.B.A. SCALE OF PROFESSIONAL CHARGES.

The attention of members is called to the draft revised Scale of Professional Charges which is enclosed with this number of the JOURNAL.

This draft has been prepared by the Special Committee on the Scale of Charges which was appointed for the purpose in April 1927. It has been the subject of consideration at two General Meetings of the Institute, and has



been considerably amended as the result of the criticisms and suggestions put forward at those meetings and subsequently. The draft has now received the approval of the Practice Standing Committee and the Council.

In accordance with Bye-law 38, the Council give notice that the revised Scale will be formally approved by them at their meeting on 20 October 1930, subject to consideration of any further comments or criticisms which may be received from members. Such comments or criticisms should, in accordance with the above-mentioned Bye-law, be submitted within fourteen days of the date of issue of this JOURNAL.

#### LONDON BUILDING ACTS COMMITTEE.

##### SANITARY BY-LAWS.

Notice has been published by the London County Council that certain revised by-laws were allowed by the Minister of Health on 21 August 1930.

These revised by-laws will have an important bearing on the planning and cost of hotels and large commercial buildings, as they permit the construction of internal water closets, artificial lighting and ventilation being substituted for the external window required by the previous regulations.

Copies of the by-laws can be purchased from Messrs. P. S. King and Son, Ltd., 14, Great Smith Street, S.W.1, or through any bookseller, price 4d.

#### MEMBERSHIP OF THE R.I.B.A.

##### THE LICENTIATE CLASS.

The revised Bye-laws of the Royal Institute of British Architects have received the approval of His Majesty's Privy Council, and applications may now be sent in for membership of the R.I.B.A. in the Licentiate Class. Full information and the necessary forms will be sent on application being made to the Secretary R.I.B.A., 9 Conduit Street, London, W.1.

#### ASSOCIATES AND THE FELLOWSHIP.

Associates who are eligible and desirous of transferring to the Fellowship are reminded that if they wish to take advantage of the election to take place on 1 December 1930, they should send the necessary nomination forms to the Secretary R.I.B.A. not later than Saturday 27 September 1930.

#### LICENTIATES AND THE FELLOWSHIP.

The attention of Licentiates is called to the provisions of Section IV, Clause 4 (b) and (c) of the Supplemental Charter of 1925. Licentiates who are eligible and desirous of transferring to the Fellowship can obtain full particulars on application to the Secretary R.I.B.A., stating the clause under which they propose to apply for nomination.

#### OVERSEAS APPOINTMENTS.

Members contemplating applying for appointments overseas are recommended to communicate with the Secretary R.I.B.A., who will supply them with any available information respecting conditions of employment, cost of living, climatic conditions, etc.

WILLIAM H. HANLYN,

Hon. Sec. R.I.B.A., Salaried Members' Committee.

#### THE NATIONAL ASSOCIATION OF WATER USERS.

Members are reminded that the National Association of Water Users, on which the R.I.B.A. is represented, exists for the purpose of protecting the interests of consumers.

Members who experience difficulties with water companies, etc., in connection with fittings are recommended to seek the advice of the Association. The address of the Association is 46 Cannon Street, London, E.C.4.

## Competitions

#### BANGOR (CO. DOWN) LAY-OUT OF SEA-FRONT.

The Bangor (Co. Down) Borough Council invite architects and town planners to submit, in open competition, designs for the lay-out of the sea-front in the Borough.

Assessor: Professor Patrick Abercrombie, M.A. [F.].

Premiums: £150 and £50.

Last day for receiving designs extended to 1 October 1930.

Conditions of the competition may be obtained on application to Mr. J. Milliken, Town Clerk, Borough Council Offices, Bangor, Co. Down. Deposit £1 1s.

#### BURTON-ON-TRENT: PROPOSED COUNCIL SCHOOL.

The Burton-on-Trent Local Education Authority invite architects to submit, in open competition, designs for a new Council School for approximately 800 children, to be erected on a site in Clarence Street.

Assessor: Mr. H. T. Buckland [F.].

Premiums: £150, £100 and £50.

Last day for receiving designs: 31 October 1930.

Conditions of the competition may be obtained on application to Mr. L. E. Burgess, Secretary and Director of Education, Education Offices, Guild Street, Burton-on-Trent. Deposit £1.

#### CAERNARVON: INNER HALL AT THE PAVILION.

The Competitions Committee desire to call the attention of members to the fact that the conditions of the above competition are not in accordance with the Regulations of the R.I.B.A. The Competitions Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime members should not take part in the competition.

#### GUILDFORD: PROPOSED CATHEDRAL.

The Guildford Cathedral Committee invite architects who have been engaged in the building of cathedrals or churches to submit drawings and illustrations of their works; or a design for a cathedral. Not more than three sets of drawings may be sent, all to be contained in one large portfolio. Architects who have not been engaged in the actual execution of such works, but have studied



and designed ecclesiastical buildings, may submit similar portfolios of drawings or designs.

The Committee, with the assistance of Mr. Walter Tapper, A.R.A., F.S.A. [F.], will select a limited number of architects for the Final Competition, who will each receive Five Hundred guineas, whether the design is accepted or not, but the Committee will be free to accept or reject any or all of such designs.

Portfolios must be sent in on or before 30 November 1930, addressed to The Venerable the Archdeacon of Surrey, The Diocesan Office, Lloyds Bank Chambers, Guildford.

#### LIVERPOOL: DEVELOPMENT OF SITE.

The General Building Syndicate, Ltd., invite architects to submit, in open competition, schemes for the development of a site at Liverpool fronting St. John's Lane, Queen Square and Roe Street.

Assessor: Mr. Duncan A. Campbell [F.].

Premiums: £250, £100 and £50.

Last day for receiving designs: 30 October 1930.

Conditions of the competition may be obtained on application to The Secretary, General Building Syndicate, Ltd., 36, St. Martin's Lane, London, W.C.2. Deposit £2 2s.

## Members' Column

#### APPOINTMENTS VACANT

A FULLY qualified assistant aged 30-35, unmarried, wanted for an architect's office in India. 3 years' engagement with prospect of Partnership ultimately, if satisfactory. Salary Rs. 800/- to 900/- and 1,000/- per mensem. First class passage paid with half pay on voyage. Principal may be interviewed in London.—Apply with copies of recent testimonials to Box 2370, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

EXPERIENCED ASSISTANT ARCHITECT capable of taking charge of Drawing Office required by a firm of European Architects with an extensive practice in India. A bachelor, age not more than 35, physically fit, good draughtsman, and with practical knowledge of construction is required. Public School man and A.R.I.B.A. preferred. First-class passage out and return on completion of agreement. Five years' agreement in first place, salary Rs. 700, Rs. 700, Rs. 800, Rs. 850, Rs. 900 per mensem, plus motor-cycle allowance of Rs. 50/- per mensem. (Present value of Rupee about 1s. 6d.) Applicants should supply full particulars of training and experience to Box 9,830, c/o Secretary R.I.B.A., 9 Conduit Street, London, W.1.

#### CHANGE OF ADDRESS.

Messrs. GRAYDON AND BARNES, F.F.R.I.B.A., have changed their address to 58 Rodney Street, Liverpool. Telephone No. Royal 1975.

#### PARTNERSHIP WANTED.

ASSOCIATE R.I.B.A., age 34, having extensive London general experience, partly in private practice, desires position of responsibility as senior assistant with view to partnership. London or Home Counties. Capital available. Reply Box 2897, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

ROME Scholar with considerable experience and imagination seeks responsible appointment or partnership at home or abroad.—Apply Box No. 1690, c/o The Secretary R.I.B.A., 9 Conduit Street, W.1.

A.R.I.B.A. desires to purchase a partnership in a well-established provincial practice, preferably in the south of England.—Box 2170, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

FELLOW, recently retired from large practice, disliking inactivity, is desirous of meeting busy architect to discuss possible working arrangement with benefit to both parties. Capital available. Would welcome even a temporary arrangement—preferably in the country or abroad.—Apply Box No. 3790, c/o The Secretary R.I.B.A., 9 Conduit Street, W.1.

#### PARTNERSHIP OR PRACTICE WANTED.

YOUNG Associate, with small practice in London, chiefly domestic, is desirous of obtaining a partnership or purchasing an established practice in London or South-Eastern district. Capital available. Apply Box No. 1166, c/o The Secretary R.I.B.A., 9 Conduit Street, W.1.

#### PARTNERSHIP DISSOLVED.

The firm of Prentice and Hodger, 9 Avenida Rio Branco, Rio de Janeiro, Brazil, being dissolved as from 1 August 1930, Mr. R. R. Prentice, F.R.I.B.A., continues practice at the same address, completing the works of the above-mentioned firm.

#### PROFESSIONAL ANNOUNCEMENT.

This partnership between William Davidson, F.R.I.B.A., and M. M. Ochterlony, of 2 Coates Crescent, Edinburgh, has been dissolved. Meanwhile each will carry on business at the same address.

#### ACCOMMODATION OFFERED.

SHARE of two large, light, furnished rooms in modern office building, Piccadilly. Heat, light, cleaning, share of clock. Inclusive £5 per month. Reply Box 1690, c/o Secretary R.I.B.A., 9 Conduit Street, W.1.

ACCOMMODATION offered in members' office, including small room, Charing Cross. Phone messengers, etc.—Apply Box 7070, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

#### ARCHITECTS' BENEVOLENT SOCIETY

(Insurance Department).

#### HOUSE PURCHASE SCHEME

(for property in Great Britain only).

The Society is able, through the services of a leading Assurance Office, to assist an Architect (or his client) in securing the capital for the purchase of a house for his own occupation, on the following terms:—

#### AMOUNT OF LOAN.

Property value exceeding £666, but not exceeding £2,500, 75 per cent. of the value.

Property value exceeding £2,500, but not exceeding £4,500, 66½ per cent. of the value.

The value of the property is that certified by the Surveyor employed by the Office.

#### RATE OF INTEREST.

In respect of loans not exceeding £2,000 5½ per cent. gross

" " in excess of " 5½ " "

#### REPAYMENT.

By means of an Endowment Assurance which discharges the loan at the end of 15 or 20 years, or at the earlier death of the borrower.

#### SPECIAL CONCESSION TO ARCHITECTS.

In the case of houses in course of erection, it has been arranged that, provided the Plan and Specification have been approved by the Surveyor acting for the Office, and the amount of the loan agreed upon, and subject to the house being completed in accordance therewith, ONE HALF of the loan will be advanced on a certificate from the Office's Surveyor that the walls of the house are erected and the roof on and covered in.

NOTE.—In 1928, over £20,000 was loaned to architects under this scheme, and as a result over £100 was handed to the Benevolent Fund.

If a quotation is required, kindly send details of your age next birthday, approximate value of house and its exact situation, to the Secretary Architects' Benevolent Society, 9 Conduit Street, London, W.1.

#### R.I.B.A. JOURNAL.

DATE OF PUBLICATION.—1930.—18 October.



# Journal of the Royal Institute of British Architects

THIRD SERIES

VOL. XXXVII. No. 20

18 OCTOBER 1930

## Contents for 18 October 1930

	Page
ORIGINAL PENCIL SKETCH. By C. R. Cockrell, R.A. . . . .	Frontispiece
LONDON PRIMA. By the President, Sir Basilist Fletcher, F.S.A. . . . .	721
SOME EARLY DRAWINGS BY PROFESSOR C. R. COCKERELL, R.A. By Professor A. E. Richardson [F.], F.S.A. . . . .	723
PADL WATERHOUSE: A COLLECTION OF CERTAIN OF HIS PAPERS AND ADDRESSES. By Professor William G. Newton, M.C., M.A. (Oxon.) [F.] . . . .	728
REVIEWS:	
D. S. ROBERTSON'S "HANDBOOK OF GREEK AND ROMAN ARCHITECTURE." By Ronald P. Jones, M.A. (Oxon.) [F.] . . . .	729
W. ALMOND'S "MODERN ARCHITECTURAL SCULPTURE." By Robert Atkinson, Hon. M.Arch. (Liverpool) [F.] . . . .	731
REGIONAL PLANNING REPORTS. By W. Harding Thompson, M.C. [F.] . . . .	732
C. S. TAYLOR AND V. R. BLISS' "HOTEL PLANNING AND OUTFITTING." By C. F. A. Voysey [F.] . . . .	733
NOTES BY MEMBERS OF THE SCIENCE COMMITTEE:	
THE EFFECT OF DISTRIBUTION AND COLOUR ON THE SUITABILITY OF LIGHTING FOR CLERICAL WORK. By Percy J. Waldram, F.S.I. . . . .	734
CORRESPONDENCE:	
HEIGHT OF LONDON BUILDINGS. By Percy J. Waldram, F.S.I. . . . .	735
NEW BUILDING GRANT REGULATIONS. By Haiswell Gwynn, M.A. (Camb.) [F.] . . . .	735
INSTITUTE OF ARBITRATORS. By W. E. Wilson [F.] . . . .	735
ENGLISH CHURCH ART. By Philip A. Robinson [F.] . . . .	736
THE INTERNATIONAL EXHIBITION OF PERSIAN ART. By Arnold Silcock [F.] . . . .	736
C.P.R.E. CONFERENCE AT WILWYS . . . . .	737
THE BUILDING INDUSTRY COUNCIL OF REVIEW . . . . .	737
FIFTY-THIRD ANNUAL CONFERENCE OF LIBRARY ASSOCIATION . . . . .	738
NATIONAL ASSOCIATION FOR THE PREVENTION OF TUBERCULOSIS . . . . .	738
LONDON HOUSE . . . . .	738
LEGAL: COLLIERIES AND ANOTHER S. WAITE AND WAITE . . . . .	739
ALLIED SOCIETIES:	
THE ROYAL INCORPORATION OF ARCHITECTS IN SCOTLAND . . . . .	741
THE ROYAL VICTORIAN INSTITUTE OF ARCHITECTS . . . . .	741
SOUTH WALES INSTITUTE OF ARCHITECTS . . . . .	741
OBITUARY:	
AIR VICE-MARSHAL SIR SEPTON BRANCHER, K.C.B. . . . .	742
THE REV. P. H. DITCHFIELD [Hon. A.] . . . .	742
COLONEL WILFRED JOHN HARCARTLEY . . . . .	742
FREDERICK GEORGE KNIGHT . . . . .	742
A. A. HUDSON, R.C. . . . .	743
A. H. RYAN TENGON . . . . .	743
WILLIAM ALAN NORRERY . . . . .	744
R.I.B.A. PROBATIONERS . . . . .	744
EXAMINATIONS . . . . .	745
NOTICES . . . . .	747
COMPETITIONS . . . . .	755
MEMBERS' COLUMN . . . . .	756
A.B.S. HOUSE PURCHASE SCHEME . . . . .	756





ORIGINAL PENCIL SKETCH BY C. R. COCKERELL

Made in 1811, probably when taking passage on the "Black Joke" for Greece (see pages 725-727)

R.I.B.A. Collection





## London Pride\*

BY SIR BANISTER FLETCHER, P.R.I.B.A., F.S.A.

**P**RIDE of family, pride of place, pride of race—these three, but the greatest of these is pride of race. Perhaps, however, even this last, when it is too much insisted on, becomes a super-patriotism which may be productive of danger to the peace of the world. True patriotism is a virtue of value, but in these world-widening days we must needs remember, with Nurse Cavell, that "patriotism is not enough."

Then there is the narrower and more intensive pride of place which has perhaps never attained to such an exuberant growth as it did in those far-off days of the little independent cities of Italy. They gloried in their independence, they flaunted their self-government, they threw down challenges to one another: sometimes architectural, sometimes military and sometimes naval, according to their situation on land or sea; but in peace times they chiefly vied with one another in the erection of grand buildings, both ecclesiastical and civic—their civic pride was expressed in architecture.

Thus did pride of place develop that rivalry in competition which resulted in the beautifying and enriching by the citizens of the place of their birth. Perhaps the most conspicuous example of their overweening civic ambition is to be found at Siena, where may still be seen marked out in enduring stone upon the ground the site of the proposed extension to the already great Cathedral, a vast plan which owed its conception to that Sienese civic pride which prompted the building of a Cathedral greater than that of Pisa—a scheme too great for little Siena to carry to completion. Thus did pride of place o'erleap itself; but here is traced for all to see the spirit of citizenship, a living spirit inspired then by Religion, which begat these material

manifestations. In our own country, too, and in our own day, we can see material manifestation of this same civic spirit, this city rivalry, this pride of place. Manchester secured a Cathedral of her own, so Liverpool, the city of an older growth, was not to be outdone. She, too, must have her Cathedral; and bravely does this great modern Cathedral now being built stand side by side in equal glory with those of the mediæval age. Then, again, Manchester had a Town Hall and also a University, and lately Nottingham must needs follow suit with her central Town Hall impressively planned on her old and famous Market Place, which had been the scene of the no less famous "Goose Fair." Nottingham is also the proud possessor of a fine University building owing to the munificence of Lord Trent, one of her sons.

A similar sort of rivalry is continually going on among many of our principal towns.

That pride of place which distinguished the old Italian cities becomes to-day in our language a proper communal spirit. In our London of a larger growth this living spirit became a wanderer, seeking a home and a resting-place during that time of transition when, with a rapidly increasing population over a largely increased area, London was trying to realise herself. But now London is beginning to assimilate the great amorphous mass of unrelated parts, and is feeling the movement of this living spirit of place. She has always suffered from the handicap that so many of her people were not born within her confines; for in proportion to her huge population the number of those who are London-born is few, so they lack the tie of pride which binds them to the place of their birth; they have drifted from the quiet country to the bustling capital, and the place of their youth still holds their heart, if not their material interest; and thus they remain half-hearted Londoners and help to produce and maintain an

\* This article originally appeared in "John o' London's Weekly" and is reproduced by permission of the publishers.



indifference to London as a living entity. She is not their Mother City but the place of their adoption. This, however, is a condition which has been changing of late years, and London is making her appeal and is producing genuine, whole-hearted citizens.

A second handicap for Greater London is that the little City has always had the sole right to bestow the title of citizen—only freemen of the ancient city are citizens of London, and this limits the number of London's elect.

The lure of London is probably chiefly for those who pursue the fickle goddess of Fortune, and they have been too apt to take too much and give back too little. Then the love of London is rather eclectic and is confined rather to the select few who realise it as a wonderful and unique treasure-house of art, learning, and culture of every sort, and as the centre of many-sided and manifold interests. In fact, for all of us London is not one London but many Londons, and this again accounts for that lack of local feeling, of local indebtedness, of local service which has often been the reproach of those who merely work in London and do not serve her.

Civic sense is now, however, growing steadily, and the signs are visible in the increased general interest displayed in new proposals and undertakings. The old city sowed the seed for generations, and this seed has now been carried out over London generally; all is now changing rapidly, and individuals, such as Lord Rothermere, are setting fine examples of devotion to London and its people. The London County Council has greatly helped to foster a sense of responsibility and loyalty to London outside the central zone of the City, and Londoners are beginning to believe in themselves in the larger sense. London has found her soul, public feeling is alive with interest in her new development, and people are being aroused to appreciate the treasures London already possesses.

Again, the City has recently led the way by its determined stand to protect its old churches from demolition, and also it realised the urgent need of safeguarding the stability of the metropolitan Cathedral against the insidious attacks of modern traffic to which it would have been exposed by the building of the proposed St. Paul's Bridge, and that project was finally vetoed by Parliament.

Then came the proposal to demolish our fine Waterloo Bridge, which is really worthy of Father Thames. This contemplated vandalism raised great and general opposition, and so the London County Council has beneficently settled on widening and not destroying our bridge.

Now follows the momentous decision to remove the monstrosity of Charing Cross Railway Bridge, which

disfigures the very centre of London. We are to have a road bridge in its place, and it lies with Londoners first, and also with the whole British public, to see that this new space which is to be opened up is used to the best advantage, and that a well-considered and complete plan shall supply a really fine new feature which shall add to the beauty of Central London and the Thames. The whole undertaking is difficult even for an expert to visualise, and the decision we make now is a momentous one; its importance cannot be exaggerated, and it will make or mar the development of London south of the Thames round the County Hall for all time.

Over all these matters Londoners have shown that they are awake, and now that the awakening of London is an accomplished fact we must make sure that the vital spark is kept alive and active. It is not so easy to focus our latent London pride on the important objects on account of the varieties of interests over such a wide-spreading area, which is hardly one town but many towns.

How, then, shall we consciously keep alive this newly-born spirit of London?

There are many methods of which not enough use is made. All our present buildings of beauty, our open spaces, should be brought to the intelligent attention of the people by lectures and visits, which indeed now exist but are not sufficiently known. Then, too, the civic spirit and all that it implies should be inculcated in all grades of schools in town and country. This can be done by photographs of objects of local interest, by lantern lectures, and by visits to neighbouring objects of interest. Even cinema shows might be pressed into the service of leading people, young and old, to realise how great is the influence of beauty and how important a part is played in our lives by environment. The Press, too, can help, and indeed has helped, by voicing the need for securing beauty in our surroundings. Every new thing, whether a bridge, an open space, a church, or business premises should be so designed as to satisfy the demand for beauty.

Those of us who are interested in preserving beauty and providing beauty should shoulder our share of responsibility by becoming members of local authorities and so help to guide decisions in the right direction. There is a great chance for Londoners which has been further opened up by the voluntary work of such disinterested organisations as the London Society, which welcomes new members and reveals to them by visits on the spot the often hidden treasures of London. There is also the London Museum, which links up London's past with London's present; and there in a quiet retreat even a casual inspection cannot fail to evoke pride in our great and unique Metropolis.



# Some Early Drawings By Professor C. R. Cockerell, R.A.

BY PROFESSOR A. E. RICHARDSON, F.S.A. [F.].



THE TRIAMIS AT GRAVESEND

The Library of the Royal Institute of British Architects has recently become the richer by a valuable gift of drawings and manuscripts forming part of Professor Cockerell's collection. It had long been the intention of the donor, Mrs. Frederick Pepys Cockerell, to place these documents where they would be valued, and it is indeed gratifying that they have now become part of a collection which is unique in the history of architecture. As time offers it is proposed to republish extracts from the original lectures and to give illustrations from among the numerous slight drawings in pen and pencil. Cockerell's power as an architectural draughtsman is well known, but the slow method by which he built up his style of drawing is not so familiar. As early as 1806, when he was sent on a sketching tour to the West of England, he began to interest himself in what might be termed scenic drawing. There were at that time numerous influences in the sphere of sketching which neither Cockerell, nor any amateur for that matter, could escape. The publication of Farington's drawings of scenery, Ireland's drawings of the Thames, and the continual flow of drawings by Rowlandson, issued by Ackerman, evidently fired the young man's imagination. Be this as it may, it is known that Cockerell possessed one or two of Farington's water-colour sketches; the external evidences point to the influence

of contemporary artists. From the first Cockerell possessed a painter's eye for composition in everything he attempted to set down on paper. Here is the explanation of the humanist character of his buildings. They inherit something of the spirit of the Renaissance, and are eloquent of the fact that an artist designed them. The youthful architect at the beginning of his career was content to draw things which must have seemed commonplace enough to his friends. But it must be remembered that at that date there was very little to offend the eye and that the conventions of painting and drawing then in vogue called for respect. Among the works bequeathed are ten slight drawings, mainly of shipping subjects, which in matter of line and figure composition combine the studious care Farington with the easy facility of Rowlandson. These studies are obviously the work of a young man—the line is nervous, but the composition in each case is economical. There is no attempt to heighten the effect by washes in bistre or colour; they are obviously careful sketch-book studies. But there is every reason to think that it was the artist's intention to render them pictorially at some future date. One drawing, showing a man-o'-war's boat with a brig in the offing (see frontispiece), may well be a study of Cockerell's own departure for Greece in the "Black Joke." There





ROCHESTER BRIDGE



A CUTTER



are drawings of Deal luggers lying high and dry, Thames-side wherries undergoing scraping and caulking, a lobster fishermen on the south coast, and picturesque

apart from their terseness of line, is the deliberate and economical drawing. Cockerell makes a statement with a few deft touches, but those touches prove that a wealth



THAMES BOATS

Original Pencil Sketch by C. R. Cockerell

groups of figures on a quayside. A further series includes a small vessel, cutter rigged, with old Rochester Bridge and Castle in the background. Another important drawing is a view of the Thames, perhaps at Gravesend, with a hoy figuring large in the pictorial arrangement. The most astonishing quality about these drawings,

of observation has gone before. Such drawings as these should act as a stimulus to young architects to-day. The craze for contortion and cryptic short-handling in drawing has now passed to its proper sphere, the catchy poster. It is also of account that English topographical artists lead the modern world.



## Paul Waterhouse, Past-President R.I.B.A.

BY PROFESSOR WILLIAM G. NEWTON, M.C., M.A. Oxon. [F.]

The late Paul Waterhouse was a man who combined in an unusual degree the qualities of scholar and man of business. And by man of business I do not mean one whose methods and ideals were commercial, but one who felt very sincerely (as indeed he felt everything) that it was an essential part of the calling of the architect to serve very faithfully the material interests of his employer. I should surmise that the office routine of his father's practice, which he inherited, was very efficient, the specifications very thorough, the letters and accounts kept in admirable order. And all this, to the son, would have been, not an accidental but one essential of his conduct of affairs. In one of the early papers of this collection\* he elaborates the idea of the employer, with all his difficult wants and all his restrictions of cost, as part of the somewhat intractable material with which the architect has to deal, and through which alone he can ultimately arrive at a genuinely satisfactory solution of his artistic problem. And with the same idea in mind he writes in a later paper, "The best architecture is wrought as a rule from the conflict with limitations."

It is, I think, well to stress at the outset this aspect of Paul Waterhouse's thought. He had no sympathy for the artistic impatience which would sweep aside the obstacles of cost and client's pocket, and impose a solution in spite of them. To do this was like removing fences in the hunting field. In his view the profession of architecture was a harder and a nobler affair, where difficulties may not be ignored, and the opinions of those who are to pay for the work must be given their due weight. For he had a high sense of duty and of the many-sided responsibilities of his calling.

And when I write of him as a scholar, I mean to imply one who had at all times the most lively interest and curiosity in all matters concerning the theory of architecture, and in all writings of the past upon it. I well remember his accosting me on the Holborn pavement a short while before his untimely death, with his solution of the obscure "*scamilli impares*" phrase of Vitruvius. For a discussion upon any nice point of theory his mind was always fresh, alert, laughing. And he combined with this eager love of inquiry, and a strongly developed critical judgment, an unusual reverence for the wisdom of the old masters, a reverence which is clearly enough evident not only in his papers which deal with the orders of Architecture (for which see especially "A Goodly Heritage," read before the Edinburgh Architectural Association, 1909) and in

such phrases as "the past is the mother's milk of our growth," but also in the tribute which it was the good fortune of the Institute to be able to ask him to pay to Christopher Wren. No one who was present at the Commemoration Banquet on the 26 February 1923, and was privileged to hear his speech on that occasion, can have forgotten how he left his manuscript behind him in passages of genuine fervour, shot through with gleams of a humour all his own, as when he told us of his unnamed friend, a man who combined a first-rate critical faculty with a facility for second-rate verse; who, wandering in the Strand for an hour of architectural meditation, was delivered of the following lines:

"Would God that Wren's immortal hand  
And more than mortal brains  
Had built St. Mary's-in-the-Strand  
And not St. Clement Danes."

What endeared Paul Waterhouse to those who knew him (and as Mr. Fletcher well puts it in his Introduction, his "friends were all those who knew him"; and those who knew him were a far greater company than those whom he knew) was not primarily his integrity of character and purpose, nor the undimmed freshness of his enquiring mind, nor his long and loyal service to the profession, nor that sense of his personality which could guide the disputes of a difficult meeting. All these would be felt as the background, as the solid substance of his character, but each in personal intercourse with him would be conscious of a whimsical, humorous, a very personal outlook on life which made him different from the ordinary run. The quality of sympathy, of breaking down the little crust which forms between man and man, he had in full measure, and with it all a something salt which gave a savour to all his views. Here and there in these collected papers is a hint to remind us of this, a faint flavour of paradox, of something simply put but carrying with it further thoughts; as when, for example, he writes, "It sometimes seems to me that the sculptor, the moral philosopher, and perhaps the ploughman, are the only persons who can claim to share with the architect the common ground on which he meets the ancients." Or again, "Of architecture no less than of prose, the recognition may be tardy. It comes, as a rule, to students only. . . . To members of Parliament, boards of directors, crowned heads, clergymen . . . it scarcely comes at all."

Paul Waterhouse was an original thinker, in the sense that he thought for himself. The achievements of the men of old awoke his fervent admiration; but he was no less alive to the joys of work today ("let the draughtsman reap his happiness as it comes"), and the romance and eternal interest of the craftsman's

\* Paul Waterhouse: A Collection of Certain of his Papers and Addresses. Oxford University Press. 1930. Price 10s. 6d. net.



doing, as his paper on "The Lead Casters" witnesses. But at best the written words can only half reveal; and he would (as Mr. Fletcher says) in giving addresses leave his manuscript on one side, treat his listeners to gay extempore variations upon the script, identical in arrangement and upshot, but richer and more spontaneous in phrasing, and of these we have no record.

To those who never knew Paul Waterhouse these writings will speak of one who had a great love for architecture and a high sense of the architect's responsibilities: those who knew him they will remind again of the loss of a friend.

## Reviews

### GREEK AND ROMAN ARCHITECTURE BY RONALD P. JONES [F.]

A HANDBOOK OF GREEK AND ROMAN ARCHITECTURE.  
By D. S. Robertson, M.A. 40. London. 1929.  
(Cambridge University Press.) 25s.

The function of the handbook of classical architecture, as contrasted with the history, is to serve as a work of reference in general reading where architectural points require explanation, rather than to provide a narrative account of the period which would be read as a whole and independently. For that function, perhaps, the most important part of this work is the admirable final section, occupying one-fifth of the space, and containing exhaustive appendices, with a chronological list of buildings, general and detailed bibliography, glossary, and index.

The rest of the book is intended to give briefly the main facts in the architectural history, and to illustrate them by an account of a limited number of important buildings.

As Regius Professor of Greek at Cambridge, the author naturally writes from the point of view of the classical scholar and not from that of the architect, and the whole effect of the book and its particular merits and defects can be inferred from his remark in the preface, "I have seen many of the chief buildings and ruins in Greece, Italy, and Southern France, but my knowledge of ancient architecture is mainly derived from long study of English and foreign periodicals and monographs and of the special publications of important sites and monuments." This literary bias leads to an excessive interest in archaic or obscure buildings which have been the subject of elaborate publication, and a rather cursory treatment of the normal examples which show the perfected types of design. There are, for instance, profuse drawings of primitive and experimental Doric orders, but not a single fully developed and representative one from the Acropolis, and the same tendency is evident in the choice of illustrations.

It is a difficult task to illustrate a book of this kind

satisfactorily. No doubt the ideal system would provide plates with a single photograph to each page, and line drawings in the text, all by the same hand, so that uniformity of effect could be secured. Considerations of time and cost alone rule this out, and the author here follows custom in reproducing drawings from other sources and in grouping, as a rule, two photographs on a plate. The drawings are taken from innumerable books, requiring no less than four pages of the preface for their "acknowledgment," and they range from the charming line sketches of Koldewey and Puchstein to hard and uninspired outline diagrams. In some well-known cases a photograph might well have replaced a drawing—there is an engraving of the temple of Nike Apteros from a German handbook which very incorrectly represents its proportion of height to length as seen from the landing of the Propylaea. The placing of two photographs on one plate, again, is not easy to manage so that the scale is always kept even, and the subjects group well; on Plate II a general view of an excavated temple site is placed above a large scale detail photograph of an archaic capital, and exterior views of the Colosseum and the Pantheon portico do not pair well together in scale.

And, among all this profusion, there is no plan or illustration of the Acropolis as a whole, showing the relation of its three great buildings to one another.

In the chapter on Minoan Crete, three magnificent plans are given from Evans's book on Knossos, and a "reconstructed elevation" of the Grand Staircase. Whatever view may be taken of the validity of the restorations carried out in the palace, we have to admit that its architecture, apart from mere archaeological interest, must have been repellently ugly; in fact, the whole civilisation, with its intricate domestic planning, advanced sanitation and barbaric splendour of decoration, combined with primitive architectural forms, provides a complete contrast to the simplicity and dignity of the Hellenic period, in which architecture was the "mistress art" and superb public buildings rise in the midst of primitive domestic surroundings.

In the early classical centuries it is interesting to note the exaggerated and bulging forms in the archaic temples, which were afterwards refined down to the almost invisible curvatures of line in the Parthenon, and the surprising freedom of design which was claimed in the treatment of the order before it became stereotyped into perfection. It is also remarkable that the Doric forms demand a very finely-grained material like Pentelic marble for their proper expression, though the older temples were nearly all built of coarse stone which had to be coated with a marble cement; in Sicily and South Italy, indeed, this ideal material was never available at any period, but no attempt was made to adapt the elements of design in order to suit the quality of the local stone.

We are accustomed to think of the Greek temple as a complete work of one period, but in two famous



examples this continuity of design is broken—in the Heraeum at Olympia by the gradual replacement of wooden by stone columns, each in the accepted fashion of its time; and in the colossal temple "G" at Selinus, which, like a mediæval cathedral, took so long to build that its columns vary in design roughly, but not quite regularly, as between the two ends of the building.

There seems to be no clear reason for the existence of the extraordinary series of colossal temples, spread all over the Greek world, and over the whole period of its activity. There was a recognised average size for normal temples, probably based on practical methods of construction and handling of materials, but far above these, and across an immense gap in scale, we find the "half-dozen giants," as the author calls them, all very much alike in size (round about 170 feet by 360 feet). No doubt there was a good deal of inter-state competition in these buildings, like the modern rivalry in Atlantic liners, but they were all far too large to be amenable to the ordinary scheme of interior design and roofing—sometimes even to the use of a free-standing order in the peristyle. Greek carpentry remained so rudimentary and unscientific that it never reached the simplest form of roof truss, and even the limited spans of the Parthenon and the temple of Poseidon at Paestum made it necessary to introduce the inner rows of supporting columns, with their absurd double ranges of shafts separated by a detached architrave. But the cella of the "giant" in most cases could not be roofed at all, and had to be treated as an open courtyard, which in the Didymeum at Miletus actually contained a small Ionic temple which constituted the shrine itself. Conjectural restorations of the Temple of Zeus at Agriguntum, where the peristyle had to be walled up in order to carry the architrave, suggest nothing so much as an early nineteenth century town hall or concert hall, designed on the accepted principles of the Greek Revival.

The author's discussion of the fifth century Doric opens with a long exposition of "an insoluble mathematical problem—the curse of Doric," to which he devotes five profound pages sprinkled with algebraic formulae, surely a needlessly alarming treatment of the obvious problem of design caused by the triglyph over the angle columns of the normal peripteral temple, where æsthetic considerations required the triglyph to be placed at the end of the frieze, and therefore off the centre line of its column. The architect admits this dilemma, and solves it by reducing the distance between the angle column and its neighbour in each direction, thus bringing the third triglyph into its right position over the centre of its column without altering the dimensions of the square metopes. This device also fulfilled another sound æsthetic function of giving an effect of additional strength at the angles

by the closer grouping of the columns. With the delicate adjustments found in the Parthenon, the whole result looks quite right and natural, and there is no reason to attribute to it the ultimate disuse of the Doric order. In point of fact, the Ionic order involved a much more troublesome snag—the problem of the angle volutes, which had to be turned out awkwardly on the exterior, while in the re-entrant interior angle they could not be managed at all, and the volutes simply cut into each other just as they met, fortunately in more or less deep shadow, where they escaped notice.

In describing the temple at Segesta, which is our "locus classicus" for methods of construction owing to the lucky chance that it was suddenly arrested in a half-finished state, and remains to this day exactly as it was left, the author disagrees with the general theory, recently supported by Dinsmoor, that the cella was never built, thus proving that the peristyle was the first part of a temple to be erected. This theory he describes as "almost certainly false," and "improbable on commonsense grounds." Why should it be? It is not at all likely that the Greeks would have agreed with our idea of what is or is not commonsense in building. The most profound difference between their point of view and our own in architecture lies in the fact that to them architecture was essentially an *external* affair—temples were conceived, and meant to be seen, from the outside in the open air, where the Greeks spent the whole of their public life. Consequently the peristyle is all-important—so much so that there is nothing in its form to explain what happens inside the cella, or even at which end the main entrance is to be found. With this idea predominant in their minds, it would be quite logical to construct the peristyle first, and might even be convenient for delicate cross-measurements between the colonnades. Apart from theory, it seems incredible at Segesta that the whole of the cella and the pavement of its area should have vanished without leaving a trace, while the peristyle itself has survived intact as it was erected, without the loss of a single block of stone.

The chapter which deals with various covered buildings, such as Assembly Halls, and the Hall of Mysteries at Eleusis, where the function was mainly *internal*, shows how difficult the Greeks found it to adapt themselves to this point of view, and how their primitive carpentry defeated the attempt to obtain large interiors unobstructed by columns.

This external bias in their attitude is realised the more vividly when we turn to Roman architecture, for, except that the phrase "classical period" includes both, there is a complete contrast in the whole conception of design, construction, and decoration. The Roman temples on the Greek model are uninspired and unconvincing, and it is not until the Empire is well



advanced that we reach the inspired Roman architecture of the Pantheon, the great *Thermae*, and the Basilica of Maxentius. These are all essentially internal architecture, the problem being the enclosure and roofing of vast spaces for general public use, where the Roman genius for mass construction reduces the imitation of Greek columnar design to little more than surface decoration, often misapplied.

In the exterior treatment of these buildings, even that tribute to Greece must have been given up as hopeless, and the great wall-spaces left to make their own effect like that colossal blank wall of the theatre at Orange which Louis XIV described as the finest wall in his kingdom. The late Roman work in the East may be described as the Baroque of the classical world—it has all the freedom of design and overloading of decoration which characterises so much of the seventeenth century work in Italy, though lacking its picturesque and romantic elements. The illustration of the interior of the temple of Bacchus at Baalbek, as restored, would serve perfectly as a superb stage setting for a masque or ballet, not less effective though less exuberant than the scene painting of Bibiena; while in West itself parts of Hadrian's Villa at Tivoli foreshadow all the playful planning of the domestic work of the Adams, apart from the direct inspiration which they derived from their studies at Spalato.

By the irony of fate and geography, it is far easier for us to visit Rome than Athens, in spite of the Hellenic Travellers' Club. But anyone who has seen both knows well that while we may form an adequate idea of the great Roman buildings from books and illustrations, Greek architecture must be seen face to face in its magic atmosphere and sunlight, and that an hour's contemplation on the Acropolis will reveal more of the supreme genius of the Periclean age than the reading of all the volumes that were ever written to explain it.

### MODERN SCULPTURE.

By ROBERT ATKINSON [F].

MODERN ARCHITECTURAL SCULPTURE. Edited by W. Aumonier. 40. Lond. 1930 [Architectural Press]. £2 15s.

So much interesting material upon modern continental architecture, touching also incidentally upon sculpture, has appeared in various fleeting press notices of recent years, that a substantial and well-illustrated volume forming a collection of the more typical recent Architectural Sculpture is most welcome. It enables the imperfect impression already gathered to be consolidated into a more complete valuation of the undoubted merits of this new movement.

The present volume, edited by no less an authority than Mr. Aumonier, is comprehensive in its scope, well-produced, catholic in its selection, and altogether a most valuable record.

This volume proves, if such were necessary, that the epoch of sculpture in painfully white plaster of Paris is passed—thank God. I could never understand why all sculpture was first born in plaster of Paris to become stone or marble or bronze indiscriminately at a second metamorphosis—if any. Sculptors always seemed to sit on so many nests, to lay eggs in so many baskets. The plaster embryonic became any size, according to the offer available for the Dining Room, the Gallery or the Public Memorial, in order that, at any rate, one of the eggs might be fertile.

To approach sculpture from an architectural point of view one must bear in mind modern architectural tendencies. Is modern architecture bad—are its forms good or merely affected? Is its result logical and developed from essentials? One may say yes, in most cases. Its starkness is irritating to minds which dwell in Italian Halls, its worst eccentricities recall the Art Nouveau of precious memory, the same cleverness turned to different issues—no new architecture is complete without a colossal staircase inside a glass case to light the footfall of falling age; and school rooms and living rooms must have solid walls, that proper contrast may be maintained. Similarly, rounded angles to concrete buildings (so-called plastic modelling) and projecting eyebrows to each floor and in between if possible, are other original individualisms common to all European countries. Its good points are its simplicity, its directness and absence of decoration where not needed, and a proper development of modern building methods.

In the main, glass and concrete are fighting it out.

Concrete forms the pillars and floors and the glass covers all like the dome over a collection of wax fruit, which serves to show how strong is tradition. Motor showrooms on the sixth floor can thus be normally inspected from the street, although no new hotel has yet been built on this principle.

Sculpture also is up and doing. As with architecture, so with sculpture: directness and simplicity are the keywords. Pale plaster is discarded and real metal and stone are being used—like architecture, sculpture is beginning again at the Crystal Palace period, or whatever is the sculptural equivalent.

I speak feelingly—as an architect I have suffered the atrocities of Grinling Gibbons on every bank for many years—the impossible milk-white ladies of the annual Academy—the continual resurrection of Donatello's tender children—those terrible French exhibitions of casts from watery clay. A sculptor will no doubt recall architectural verisimilitudes which he equally admires.

Egyptian repose, Greek refinement, Roman vigour, we have had for a great many years before us—all wonderful—but we want something for ourselves out of ourselves, and we may now be on the right way towards it.

Most of the works illustrated tend towards what is called modern art and presumably designedly so. The full blast of criticism is thus let loose, and I must confess that, speaking as an architect, my general impression is favourable—the evident sincerity of the work, the often masterly handling of composition, and, above all, the obvious striving after a unity between the object and its material—and not least, its architectural setting.



Materials, as such, are part of the sculptor's palette. Just as an architect varies his treatment for bricks and stone and flints, so the new sculpture agrees with its material, and texture, relief and modelling are one whole. Bricks are carved with a strong surface, and hard stones with a roundness sleek and svelte as an Egyptian idol.

The book opens with a telling frontispiece—a beautiful lunette of the Madonna, full of simple piety, delightful in its arrangement, modelling and texture.

German work since before the War has been progressing towards the new ideals. I remember seeing at Naumburg and Wiesbaden various fountain figures in rough limestone which were admirably modelled and suited to their functions. And, while some of the figures in this work are reminiscent of classical prototypes, others are more plastic and proportioned as decoration rather than laboured anatomy, which as decoration is all to the good.

I personally find such figures as the carved wooden "Diana" and staircase balustrade on page 4 delightful, and the terra-cotta figures on page 5 equally good design and part of the background as well—which unity is seldom achieved.

Such handling of pure decoration as Professor Hitzberger's panels are masterpieces, as is also the fitting on page 16 by W. Sutkowski, illustrating a definite trend in metal work, which seems to have permeated all the northern European countries.

Altogether I have nothing but praise for the German work illustrated.

The Swiss and Czechoslovakian work does not appear to be so well handled. Of Yugoslavia and Mestrovic one has already heard much—his work here illustrated is strong and yet a little, one might say, Americanised. His Mortuary Chapel at Ragusa is sculpturesque and not architectural.

Italy impresses more than I had expected, perhaps by reason of recent poor architecture which lingers in my mind. Of a technique quite different to the many others, and presumably for bronze, the groups by Eugenio Baroni are powerful, compelling, and a little like a film. Other works by Martinez and Cataldi have great traditional feeling, force and grace of character.

France leaves me rather cold—perhaps because I have seen it all before—or the spiritual meaning escapes me. I can't say. The animals in hard stone on page 53 are fine and bring sculpture again into the class of house decoration.

I confess to no admiration for the Pendule by Maillot and similar works, but I do like "A Young Girl" by J. Bernard and that wonderful group not here illustrated of the Paris Exhibition of 1925, and the Memorial at Algiers by Landowski—although the latter is too much in the Victor Emmanuel manner.

America gives me a curious feeling of efficiency and lack of real sympathy with sculpture. All this stuff by Lee Lawrie is so easy to do, so forced in design and so mannered in execution that after a first good impression it falls flat—a general defect which Paul Manship also shares in a lesser degree.

By far the best piece of work under this heading is the Tympanum for Princeton University—a beautiful com-

position obviously founded on the great French works of the early thirteenth century. Another Tympanum on the same page is streets behind it, although more obviously striven after as a design.

Austrian works in architecture, sculpture and decoration are always fresh, and this section well holds its own. I am not altogether all out for everything shown, but the workmen's dwellings on page 83 are to my mind an example of the thorough blending of material and architecture, and ornament and sculpture. And as to texture, relief and freshness, the figures on page 85 are architectural ornament at its best.

The Northern countries, Denmark and Sweden, are old friends. Denmark, perhaps, is not so virile as Sweden, but Thomsen's Crematorium is strong and good. The work of Carl Milles alone raises Sweden head and shoulders above the rest of Europe. Milles's mastery is wonderful, his composition telling and his technique superb.

Holland is more sophisticated, more "arty" in its methods, and perhaps more revolutionary and more ugly, without being less interesting.

Great Britain comes last in the book and perhaps last in development. The great figures of pre-war days in the realm of sculpture are no more, their works probably not very lasting, and one feels a curious hiatus these last few years with nothing to bridge the gap between the old gang and the new. The works illustrated vacillate between the violently modern and the violently orthodox. Dobson irritates by his malformations, Tyson Smith irritates equally by his smug classicality. Gilbert Ledward, Eric Kennington and Richard Garbe hit a medium course, and to my unlettered mind often quite beautifully.

A building which I never cease to admire, and that of many years' standing—which is unusual when most of my sweethearts have been changed—is the British Medical Council building, wrongly here ascribed to Lutyens instead of to Frere.

I am ashamed to say I fail to see any quality in the two atrocious War Memorials on pages 152/153, whilst certain other works appear to me to resemble partially inflated inner tubes.

## REGIONAL PLANNING REPORTS.

By W. HARDING THOMPSON [P].

The recent publication of the first report of the Greater London Regional Committee\* will arouse renewed interest in the various reports by the constituent bodies and particularly for those areas, still largely agricultural, that surround London. The Home Counties are being continuously pierced by the outposts of bricks and mortar flung out from London's suburbia, and unless planning authorities quickly reserve their open spaces and agricultural areas it will be too late.

In Mr. W. R. Davidge's Report prepared for the Hertfordshire Regional Planning Committee† he strongly emphasised the necessity for the development of the new and existing centres of population, leaving the intervening

\* With memoranda by Dr. Raymond Unwin. 4to. 1929. [Knapp, Drewett and Sons.] 5s.

† 4to. 1927. [Vacher and Sons, Ltd., Westminster.]



countryside as agricultural belts. This method of centralisation in new towns and satellites of limited size is the only scientific alternative to the unorganised decentralisation of London now in process along the radial roads. The County of Hertford is so far remarkably free from exploitation by the land speculator on a large scale, and agriculture and market gardening is still the predominating industry: the chalk land of the northern areas being mainly arable, while the clay lands nearer London are for the most part more suitable for pasture and hay crops. The county has already provided an object lesson in the successful establishment of two Garden Cities in communal ownership, also two satisfactory examples of private estate development on a definite plan. It remains for the County Council and the planning authorities to decide on the location of further sites where the development of new towns and grouped settlements could be encouraged. Mr. Davidge has made suggestions in regard to these areas; and this constitutes his chief recommendation. The most important new road proposals include the Hertfordshire section (30 miles) of the North Orbital Road: a new east and west mid-county road, required to link up the numerous existing arteries going north; by-passes for Hoddeston, Ware and St. Albans, and a new approach road to the county town from the south, avoiding Chesham and Hoddeston. In regard to regional open spaces, the author suggests that many of the large country estates in which the county is so rich, such as the Parklands of Hatfield and Panshanger, might well be scheduled as "Private Open Spaces" in the statutory Scheme; also that green strips of varying width should be permanently reserved from building along the valleys of the Colne, Lea, Mimram and other rivers.

All these and many other recommendations are clearly shown on a comprehensive map of the whole county, which also indicates certain areas to be scheduled for industry and as agricultural reservations. But unless the local authorities in their detailed schemes reserve more extensive areas for agriculture, sporadic development will not be effectively checked and the county will not preserve its present rural character. It is essential that regional planning powers should be given in order to prevent building over wider areas.

This report is admirably illustrated with numerous diagrams that show existing conditions in a much more digestible form than pages of statistics that have appeared in several similar reports, and the published price should ensure a wide circulation. It is noteworthy that Hertfordshire was the first county to undertake a survey and plan for the whole of its administrative area, and it is hoped that Mr. Davidge's valuable suggestions will be incorporated in the individual schemes now being prepared.

A most attractive report was published last year on the West Sussex Coast and Downs. This was prepared by Mr. Arthur H. Schofield for the Arundel, Littlehampton, East Preston and District Advisory Committee.\* Unlike the usual royal quarto volume, the author has presented his report in a smaller and more convenient-sized book with sectional maps, photographs and admirable line diagrams easily readable by the layman. The report is divided into three parts: (1) a survey of the region, (2)

present tendencies and powers of control and (3) the plan. At the end of each chapter in Part III the author gives a concise summary of his recommendations, a system which is in many ways preferable to giving a more lengthy summary of the whole report as a conclusion. Here, as in Hertfordshire, the reader is impressed with the urgent need for intelligent zoning, and for the redistribution of population by the development of towns and villages around nuclei rather than the more usual haphazard growth without a plan. Communications and the need for extended engineering services are also dealt with most efficiently.

In regard to the general character of the future buildings, Mr. Schofield points out the very great advantages—social, economic and æsthetic, of compact communities in contrast with the kind of loosely planned open development which is so prevalent and which is so liable to absorb large areas of the countryside that could more wisely be reserved for agriculture and recreation.

This report, in its suggestions, literary style and format, expresses the individuality of one who obviously has not only a thorough grasp of the fundamentals and technique of regional planning, but is also a keen student of human affairs and tendencies. The book will appeal to all who love the Sussex Downlands as well as to the architect and town planner, who will find the theory applicable to other Regions. I would recommend every student of the subject to add it to his library.

## HOTEL DESIGN

BY C. F. A. VOYSEY (F.)

HOTEL PLANNING AND OUTFITTING, G. S. Taylor and F. R. Bliss, editors. (Albert Pick-Bath Company.) 40, Chicago, 1928-30. £2 2s.

The book entitled *Hotel Planning and Outfitting*, issued by the Albert Pick-Bath Company, of New York, is a cleverly compiled and exhaustive treatment of every question connected with hotel and restaurant matters. It is peculiarly valuable as coming from a large number of experts.

The compilers record their thanks to more than 100 architects and specialists. So the book is singularly free from personal bias or prejudice. It deals with the subject under three heads, namely, commercial, residential and recreational.

English architects and all those officials that help to make building by-laws ought to take to heart the superior wisdom of the Americans in allowing lavatory accommodation inside buildings with no direct daylight.

The most striking features of American hotels, as shown by this book, are the designers' reliance on artificial light and the almost total absence of urinals. It is to be hoped that before long Englishmen will recognise the primitive and unpleasant arrangement we invariably provide.

No friendly greeting and companionship which open fires provide are indulged in by Americans. Like modern cookery, instead of toasting with direct fire rays, steaming seems the order and principle of general warming.

However critical we may be, we must admit that this

\* Sm., 4to, 1929. [Arundel: Mitchell and Co.] 5s.



book is crammed full of very useful information, given in a very comprehensive manner. There are sections devoted to the proportioning of bath and lavatory accommodation. How the efficiency of planning may increase rents for the same area, economic kitchen planning, and many other specialities are well treated.

#### NOTES BY MEMBERS OF THE SCIENCE STANDING COMMITTEE

THE EFFECT OF DISTRIBUTION AND COLOUR ON THE  
SUITABILITY OF LIGHTING FOR CLERICAL WORK.  
*Technical Paper No. 10. Illumination Research  
Department of Scientific and Industrial Research,  
H.M. Stationery Office. 6d.*

It is the ambition of every true craftsman that his work should endure, and few craftsmen are so fortunately placed in this respect as the architect. He can confidently expect that, in the nature of things, any building which he designs, at least for habitation or for sedentary occupations, is not likely to be removed or even to be materially altered for some 50 to 100 years, and probably much longer.

But this enduring permanence, gratifying as it is, also carries with it grave responsibilities. In a block of city offices, for example, every working space will probably be occupied for about 40 hours a week for 50 weeks in every year of its existence. It is a rather sobering reflection that in designing the ventilation, the warming, and, what is probably equally permanent, the natural and artificial lighting of even a small block of offices, housing, say, 200 persons, one is of necessity making decisions vital to the daily and hourly comfort, and more especially to the health, of future generations over at least some 20 million working hours.

How often do we reflect on this as we gladly overcome our light and air difficulties by negotiating reciprocal agreements? Under these our client's ambitious and profitably lofty building scheme is permitted to go up and to darken neighbouring premises; but only by employing the easy expedient of giving them the legal right to darken it in turn at some future time when it is all let off to tenants who must take what they can find.

Still, the architect must, perhaps, take this selfish old world as he finds it. If he did not carry out his client's wishes, then doubtless someone else, less scrupulous, would. If we cannot provide natural light, then we must seek to give the workers whom we are housing at least an ample sufficiency of artificial light, and the best of its kind. But what is an ample sufficiency of artificial light? We cannot judge by daylight, because we know that our eyes cannot endure from artificial sources anything like the huge intensities of daylight. From the latter, under which they have developed for millions of years, they take only that which they need, and protect themselves against the surplus. Whether they will ever learn to do so, or to do so sufficiently, with regard to artificial light we do not know. Certainly after a paltry generation or two of artificial light they are still easily dazzled by excess; and excess is expensive.

Are we then to provide the 5, 10, or 15 foot candles recommended in text-books, copied originally from authorities not uninterested in the sale of electric power? We know that even though lighting bills may represent but a small fraction of total expenditure, the cost of providing the difference between even 2 and 3 foot candles to a large staff can be quite substantial, especially to a client who studies his outgoings closely.

What also is the best kind of artificial light? Is it top lighting, side lighting, direct, indirect, or semi-indirect? Is it really the colour of the light from the unscreened incandescent filament, as compared with that of daylight, which causes eyestrain to those who have to use it all day and every day? If so, ought we to install the large lamps required for daylight lamps which wastefully cut off the excess of yellow and give the workers light which more closely approaches the spectrum of daylight, at substantially increased capital and running costs?

These are questions which the architect may shirk, but for which he cannot escape responsibility.

The report under review, modest as it is in size and in price, is a really valuable contribution to our existing knowledge.

It records, in the terse, clear phraseology—exhaustive without being exhausting—characteristic of N.P.L. Reports, the results of lengthy practical tests of typical systems of natural and artificial lighting for clerical work, well thought out, carefully conducted, and intelligently analysed. Selected workers, subject to medical supervision, carried out clerical work of a somewhat trying nature over long periods under varying conditions. The results are judged not merely by measuring the comparative volume of work executed under each system of lighting, but rather by noting the medical experiences, complaints of eye-strain, headache, etc., and the general opinions and the preferences of the workers.

The results are published by an Advisory Committee comprising ophthalmic surgeons, scientists, engineers and architects. The definite conclusions arrived at appear at first sight to be somewhat meagre; but further consideration shows that the tests which gave inconclusive results were generally confined to a somewhat limited number of "subjects" over short periods, whereas those with regard to which the Advisory Committee feel justified in drawing fairly definite conclusions indicating the marked advantage of daylight, natural or artificial, were of wider scope. This in itself is useful as tending to disprove the helpless idea that it is difficult or impossible to measure scientifically average human opinions. The maxim *Quot homines (and more particularly quot feminae) tot sententiae*, does not of necessity prevent the depth of average opinion to be charted, provided that soundings are averaged over a sufficiently large area. It is only when attempts are made to average a few crests and hollows of human idiosyncrasy that the results appear to be hopelessly at variance.

The report is one which should be carefully and thoughtfully studied by architects. Its value is in no way reflected in its nominal cost.

PERCY J. WALDRAM, F.S.I.



## Correspondence

### HEIGHT OF LONDON BUILDINGS.

(Interim Report of the Conference between the London Society, the R.I.B.A. and the Town Planning Institute.)

9 Gray's Inn Square,  
London, W.C.1  
24 September 1930.

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—Although the above Report, which appears in the JOURNAL of 20 September still awaits consideration by the Council, few architects will fail to appreciate, and many will welcome with enthusiasm, the wise and courageous manner in which the Conference has dealt with a subject bristling with difficulties.

It is for this reason that one is of necessity just a little apprehensive as to what may happen if and when attempt is made to translate into definite regulations certain terms which appear, somewhat lightheartedly, throughout the Report. To such expressions as "adequacy of light and air," "the amount of light and air required for the class of user," "fair share of light and air," and the like, no objection can be taken. They are excellent. But what precisely do they mean? Until this question can be answered, and with authority, it is impossible to frame regulations to bring them into effect. It is therefore encouraging to note that our ideas on the subject, which a few years ago were hopelessly and helplessly vague, are by way of becoming far more usefully definite. We may still have some distance yet to climb towards agreement upon general definitions; but the going is easier than it was.

Some twenty years of research and controversy were involved before general agreement was reached here and abroad as to a quantitative definition of adequacy of daylight at any single working position. But immediately that was reached, the Courts—whose difficult duty it is to settle disputes between neighbours—found it far easier to determine what was a fair disposition of adequate and inadequate daylight over any given room; and for years their decisions with regard to rooms have shown remarkable unanimity.

The difficulty of defining reasonably adequate light and air to *houses* with due regard to all conflicting interests should not now be so insuperable as it has appeared to be for many years. Given this, plus some reasonable standard of fenestration, definition of permissible obstruction would present little difficulty.

The British Daylight Committee of the International Commission on Illumination, upon which the R.I.B.A. is represented, is studying the subject in active collaboration with similar Committees abroad, in the hope of securing agreement upon definite standards to be recommended to the Plenary meeting of the Commission in London in 1931. The problem of town building density is not confined to London nor to this country. All nations have to face, and are facing, the question as to how far the physique of workers in towns shall be sacrificed to the immediate needs of business and commercial activity, which call insistently for more and more concentration of buildings and therefore less and less light and air for the poorer

workers, condemned to reside in overcrowded suburbs and slums. Fortunately international exchange of views is facilitated by international agreement upon a standard definition of moderately dull weather. This being determined by cloud thickness only is independent of solar altitude and therefore of latitude; a wet day in Rome being no brighter than a wet day in London.

The R.I.B.A., by actively and consistently denouncing any increase in the permissible height and density of buildings in towns, has done incalculable good in the past. Acceptance of this report will, it is to be hoped, follow as the logical sequence of that policy. But policy alone is not sufficient. Data is required and data will be found sooner or later. If the opinion of the R.I.B.A. as to what obstruction in towns should be permissible in the interests of the community at large (a totally different question to individual rights of light) it must make up its mind as to what is adequate light and air to buildings, as distinct from adequacy to individual rooms or working places, and it must place its decision on record.

The representative of the R.I.B.A. on the British Committee can ensure that all expressed views are duly considered both here and abroad. But he cannot speak for those who are silent.—Yours faithfully,

PERCY J. WALDRAM, F.S.I.

### NEW BUILDING GRANT REGULATIONS.

38 Rodney Street, Liverpool.  
25 September 1930.

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—*Education*, the official organ of the Association of Education Committees, published on 12 September in the minutes of the Executive of the Association of Education Committees the following letter from the Blackburn Education Committee:—

"My Authority understands that it is the intention of the Board of Education to require the terms at the end of the financial year from each Authority showing the total cost of the professional staff and the proportion attributable to school works.

"My Authority are of opinion that the question of the allocation of such items as office expenses will be extremely difficult, and they would prefer the Board approving a percentage basis, say five per cent. of the cost of the school works in respect of the services of the Authority's architectural staff.

"Will you please raise this matter with the Board as one arising out of the answer to the question mentioned above. Resolved—That no action be taken on this point of detail at the present time."

Let us hope that the Board of Education will not be put off. A return showing the exact annual cost of architectural staff attributable to school work, if the cost of architectural work is given for the same year, will prove very interesting to architects in private practice.

HASTWELL GRAYSON [F.].

### INSTITUTE OF ARBITRATORS.

3, Paper Buildings,  
Temple, London, E.C.

22 September, 1930.

To the Editor, JOURNAL R.I.B.A.,—

DEAR SIR,—May I ask for the indulgence of your



columns whereby to address the younger members of the Royal Institute.

The above Institute was formed some fifteen years ago for the assistance and benefit of those who are called upon to act as arbitrators and this policy has recently been extended so as to provide educational facilities for the younger men who will in proper season be called upon to arbitrate upon technical matters.

The Institute does not instruct in technical details, but it does seek to ensure that its members in addition to the technical experience gained in a profession may also have some knowledge of the legal pitfalls which normally arise in arbitration and so pre-prepare them better to fulfill the duties of an arbitrator.

Full particulars of membership and examination syllabus, etc., may be obtained from the Secretary, Mr. R. W. L. Clench, 10, Norfolk Street, Strand, W.C.2.  
—I am, dear Sir, yours faithfully,

W. E. WATSON [F].

President, Institute of Arbitrators.

### ENGLISH CHURCH ART.

St. Stephen's House, S.W.1.

26 September, 1930.

To the Editor, JOURNAL R.I.B.A.—

DEAR SIR,—A brief note, closing this correspondence, is necessary to enable me to apologise for an error. "Mr. Stephen's" was incorrect, I was referring to the charming record by Mr. Reynolds Stephens, whereas it was the work of Mr. Bainbridge Reynolds to which Mr. Voysey referred. But, in his very first sentence, he *does* compare the S.K.M. exhibition and that organised by me as Chairman of the Church-Crafts' League, and my main point in writing at all was that his criticism viewed the latter as a mere arts-and-crafts show whereas it contained examples of all the Fine Arts.

Now Mr. Voysey emphasises my point still further by pointing out that the one example of the Fine Arts which I thought he had praised was incorrect. The outstanding feature at the Caxton Hall was the very remarkable sculpture—not to mention architecture and painting—and, in his desire to correct some technical points in craftsmanship (points on which artists are not agreed), he ignored the major arts.

Finally, if he will look up the etymology of *dorsal* he will find that my spelling is correct. He may write *dosel*, *dosell* or *doser* but not *dosal* which is a modern corruption and is found in the art-catalogues of clerical tailors.—Yours faithfully,

PHILIP A. ROBINSON [F].

### THE NATIONAL PLAYING FIELDS ASSOCIATION.

The result of three years' work no fewer than 550 new playing fields and recreation grounds have been provided by or through or with the active co-operation and financial assistance of the National Playing Fields Association and its branches. The playing fields are distributed over Greater London and the whole of England and the north and south of Wales.

### THE INTERNATIONAL EXHIBITION OF PERSIAN ART

By ARNOLD SILCOCK [F]

The International Exhibition of Persian Art, which is to be held at the Royal Academy in January and February 1931, is intended to assemble and co-ordinate treasures which are dispersed all over the world in various public and private collections, and its interest and importance promise to equal if not to surpass that of the historic exhibitions of Flemish, Dutch and Italian Art.

The art of Persia has recently been proved to extend from prehistoric times to the present day, and it comprises a variety of styles and materials which have never hitherto been fully apprehended. Persia has produced the most startling achievements in the realm of architectural design, and the most brilliant architectural ornament in stucco and faience, but in addition to this are to be found magnificent examples of sculpture in stone and metals; ceramics that are rivalled only by those of Greece and China; silver, gold, glass and enamel that have set a world standard; exquisite miniatures and other paintings; rich brocades, velvets, tapestry and carpets; beautiful book-bindings, woodwork, arms and armour.

All these will be represented by the finest examples, selected from the libraries and royal and private collections of twenty countries.

It is hoped that His Majesty the King, who has graciously consented to be a patron of the Exhibition, will lend some pieces of historic interest, and His Majesty the Shah, who is also a patron, is sending many treasures from the palace collection, the National Museum, and the jealously guarded mosques. By the desire of His Majesty King Fuad, the Egyptian Government is lending works from the Cairo Museum and Khedivial Library. From Russia will come a valuable contribution including famous silver, gold and bronze Sasanian vessels; France, Italy, Germany, Austria, Poland, Scandinavia, Spain, America and other countries are sending examples of Persian art of various descriptions. Many of the exhibits, including some recently discovered, will be shown publicly for the first time. Assistance and support are being given by the American Institute for Persian Art and Archaeology, the Association Française des Amis de l'Orient, and the Deutsch-Persische Gesellschaft, while for the particular information of scholars the announcement is made that the second International Congress on Persian Art, which will be attended by authorities from many different parts of the world, will be held during the first week of the Exhibition.

The above is a brief résumé of the prospectus, but architects will be especially interested in the fact that the exhibits and photographs of early Persian Art tend to prove that Persia was the source of many architectural features which we have been accustomed to regard as Western in origin. For example, the pointed arch, the vault and the dome, all occur in Persian architecture long before they appear in the West. Some of the photographs representing the interiors of mosques, which up to the present time have been accessible only to the Faithful, now show that not only the elements themselves but their grouping and disposal also bear a remarkable resemblance to Romanesque and early



Gothic building. Some of the finest vaults and a few of the largest domes in existence were built by Persian hands many years before the Western builder tried his prentice hand on the same kind of thing.

In later years the art of the potter reached such an extraordinarily high standard that architects were able to enrich the whole brick façade of their buildings with magnificent designs in brilliantly coloured glazed tiles. Large numbers of these tiles will be shown in the Exhibition, and it is hoped that models of one or two of the buildings, showing the methods employed and their general effect, will also be included. The very rich appearance thus achieved in interior decoration will be illustrated by at least one complete room in mosaic-tile. The interest of some types of these ceramics is increased by the fact that we have now lost the secret of firing together these brilliant colours.

Architects will also be attracted by numerous examples of Persian sculpture and metal work, for until quite recently it was thought that there was practically no Persian sculpture, while a whole series of magnificent designs in carved and moulded metal has been discovered during the last twelve months.

#### C.P.R.E. CONFERENCE AT WELWYN.

Town and Regional Planning was discussed at the National Conference of the Council for the Preservation of Rural England, which began in the theatre at Welwyn Garden City, under the presidency of Lord Crawford. Mr. E. Guy Dawber presided at the opening session.

Sir Theodore Chambers, vice-president of the Town Planning Institute, introduced the subject of "Town and Regional Planning in its Relation to the Objects of the C.P.R.E." He said the C.P.R.E. was not foolish enough to suppose that it could stand in the way of inevitable economic changes or stem the tide of progress. The improvement in the standard of life of the mass of the people, which received an immense impetus during the war, and the general desire that this standard should be maintained, would lead to the clearance of the slums and the abolition of overcrowding.

Town planning, so far as it had reached to-day, did no more than touch the fringe of the subject. It did not initiate development or carry out development. It was not really executive except in the sense that the authorities had certain policing powers. Town planning was not town building. The range of the control of town planning was still very limited. It was possible that in future they would get some advantage by the extension of the principle of zoning and by the more universal introduction of the policy of submitting elevations and specifications for the approval of local authorities. What was lacking was the executive authority to carry out development with all that was entailed in engineering, architecture, and the other essential sciences.

In his opinion the two most vital problems awaiting solution, and upon the satisfactory solution of which the country depended, were those of the pooling of ownership and the pooling of compensation for the compulsory restriction of the rights to build. These two problems were closely allied. The idea of the pooling of ownership depended on the theory that the accidental unit of ownership was not necessarily the unit of maximum

economic or social advantage or utility. The idea of the pooling of compensation was based on the theory that if building was prevented on one area the building value was automatically transferred elsewhere. It was of the utmost importance that they should, by consent, arrive at a sane and equitable system by which the compensation paid to those owners of land who were deprived of prospective building value should be met out of a charge upon the lands of those owners to whom such building value passed.

Mr. G. L. Pepler (Chief Town Planning Inspector, Ministry of Health), referring to regional planning, said there were now some 100 joint committees of various kinds, covering more than a quarter of the country, and of these 100 about 40 were clothed with executive powers to prepare statutory schemes. There were also 573 local authorities that had embarked on 906 town planning schemes covering more than 5,500,000 acres. Of these 573 only 205 were urban districts with populations of 20,000 or more, and therefore compelled by law to prepare town planning schemes. Members of C.P.R.E. might make the point that in view of all this planning activity why did so many things which they objected to still continue to be done? In answer to this two facts might be quoted: (1) The application of the present Town Planning Act was in the main limited to land "which is in course of development or appears likely to be used for building purposes." (2) C.P.R.E. was a young body and had not yet had opportunity to inspire the mass of the people of this country with its own ideals and enthusiasm.

Following the discussion Lord Crawford moved:—

That this conference is of opinion that the deterioration of the amenities of the countryside is progressing with such rapidity that unless the Government takes immediate steps to extend the Town Planning Acts to all land, whether built upon or not, irreparable damage to the country is inevitable within a few years. This conference asks the C.P.R.E. to take immediate steps to investigate through its representative bodies and otherwise the following particular problems and to make recommendations thereon: (1) The best means of ensuring that the elevation and character as well as the plans of new buildings (including their site planning and the material used) shall be in harmony with their surroundings, and that alterations to existing buildings of interest shall be subject to efficient control. (2) To examine proposals arising as a result of restrictions under Town Planning schemes, including suggestions for the pooling of compensation and betterment, and the equitable distribution of the financial burden. (3) To examine possible methods by which new towns on virgin areas might be promoted and the executive machinery provided for their building and control, whether by the State, by the county councils, or by authorised voluntary associations.

Mr. E. Guy Dawber seconded the motion, which was carried.

#### THE BUILDING INDUSTRY COUNCIL OF REVIEW.

The interim report of the Building Industry Council of Review has now been published. The enquiry by this Council is an effort from within the industry itself to organise and keep abreast of economic developments under modern trading and industrial conditions.

The industry realises that its activities have a direct



bearing on the problems of unemployment, the economic effect of the social services, the working conditions of its operatives and on the standard of rent and housing conditions of the country generally.

The efforts of the Council are directed towards obtaining the greatest degree of efficiency within the industry whereby the advantages of economic building are disseminated over the widest possible field.

Lord Amulree, K.C., is President, and the Rt. Hon. Sir J. Tador Walters, P.C., M.P., F.S.I., and Sir Banister Fletcher, P.R.I.B.A., F.S.I., are Vice-Presidents. The Council includes members nominated by the Royal Institute of British Architects, the National Federation of Building Trades Employers, the Surveyors' Institution, the National Federation of Building Trades Operatives, the Committee of Building Materials Manufacturers and Suppliers, and the British Steelworks Association. Copies of the report may be obtained from the Secretary, the Building Industry Council of Review, 5 Duke Street, Adelphi, W.C.2.

#### FIFTY-THIRD ANNUAL CONFERENCE OF THE LIBRARY ASSOCIATION.

The Annual Conference of the Library Association was held in Cambridge from 22 till 27 September.

Mr. Theodore Fyfe represented the Institute, and reports that the Architectural papers given on 23 September were very good. The assistant University librarian's exposition of the new University Library was specially interesting to Cambridge people. Being on a site practically unrestricted, it had an openness of treatment which was delightful. As the librarian was careful to point out, the library had been specially planned to meet the special requirements of a University library.

Mr. Vincent Harris's paper described an entirely different building—that of the circular planned library, which seemed to be his solution of a complex problem, dealing with the grouping of several important buildings, on a comparatively restricted city area. If the building carried with it the inevitable defect of the monotony of continuous circular form, it was at any rate planned with masterly simplicity. Mr. Harris gave a full description of such important details as heating, ventilation and elevator services.

Sir Richard Allison's paper on the British Museum library was interesting historically, as the modern replacement of the time-honoured "iron library" which had served for so many years. Necessarily, it recorded a restricted problem, but one which is interesting to every Britisher.

The subsequent discussion centred principally on a criticism of the circular planned library, as this form did not seem to meet with acceptance in some quarters.

#### NATIONAL ASSOCIATION FOR THE PREVENTION OF TUBERCULOSIS.

Mr. Hubert M. Fairweather [F.] represented the Royal Institute of British Architects at the sixteenth Annual Conference of the National Association for the Prevention of Tuberculosis held at the headquarters of the British Medical Association, Tavistock Square, on 4 and 5 July. Mr. Fairweather gave a short paper on tuberculosis in

relation to education, dealing with the construction of open-air and nursery schools. In the course of his paper Mr. Fairweather said that a marked improvement in the standard of plan and design of such buildings had taken place during recent years. They were simple, more suitable to their purpose, of good proportion, and built with well-chosen materials. In this country and abroad we now had some splendid efficient schools of the open-air type: the Margaret McMillan School at Bradford, for example, and schools at Liverpool and Welwyn Garden City. In general outline buildings should be planned to secure the complete free movement and access of air throughout. Aspect, sunlight, protection from north-east winds and driving rain, together with the general amenities of surroundings, the drainage, and all other services, were matters for consideration.

#### LONDON HOUSE.

##### PROPOSED HALL OF RESIDENCE FOR BRITISH AND DOMINION STUDENTS IN LONDON.

A fund is being raised to provide a University Hall of Residence in London, to be called "London House," which will be chiefly for the benefit of male students from the Dominions and the Colonies, but which will be available also for use by British students studying in London and having homes in the country.

London House will be an independent institution, but will be in close association with the University of London, who have expressed their sympathy with the scheme and will recognise the hall when it is established. Other institutions who have also expressed approval include the Royal Institute of British Architects and representative bodies of the law, medicine, engineering and accountancy.

Already over £130,000 has been subscribed and an excellent freehold island property acquired on the south side of Mecklenburgh Square. The centre of the property will be cleared and a new dining-hall, common rooms, library and the main entrance to the College property will be built. The surrounding houses will be adapted for students' residences until a sufficient sum is collected to make possible the rebuilding of the houses according to an architectural scheme for the whole site. Another £120,000 will be required to complete the scheme.

Members who are interested in the scheme should write to F. C. Goodenough, Esq., treasurer, Dominion Students' Hall Trust, Barclays Bank, Ltd., 54 Lombard Street, E.C.3.

#### TRIBUTE TO SIR ALFRED GELDER.

The Freedom of the City of Hull was conferred on Sir Alfred Gelder, F.S.I. [F.], at the Hull Guildhall on 2 October. A former Mayor of Hull, Sir Alfred Gelder has served on the Hull City Council for 35 years. He has played a prominent part in street improvement and the abolition of slums.

#### SIR JOHN SOANE'S MUSEUM.

13 LINCOLN'S INN FIELDS, W.C.A.

Interesting House and art collection. Open free, Thursdays and Fridays in October, 10.30 a.m. to 5 p.m., and in November, 10.30 a.m. to 4 p.m.



# Legal

GOLDBERG AND ANOTHER V. WAITE AND WAITE.

(Before Mr. Justice Bennett.)

His Lordship gave judgment on 29 May for the defendants in the above case, which was heard by him at the Law Courts at London. This case is of exceptional interest, in view of the fact that it is the only one in which a definite judgment has been given concerning the possibility of enjoying an easement of reflected light by prescription. It has long been pointed out that in the Prescription Act light was referred to generally and not specifically, as either direct light from the sky or as direct light from the sky, supplemented by light reflected from external obstructions. There is apparently only one other case in which reflected light, as opposed to direct light, has received special consideration, namely, the case of *Price v. Hilditch*, which was recently heard by Mr. Justice Maughan. The judgment in this case was, however, by no means conclusive in this respect. Although the present judgment is one of a Court of first instance only, the case will doubtless be regarded as the leading one on reflected light, until such time as the question may be dealt with in either the Court of Appeal or the House of Lords.

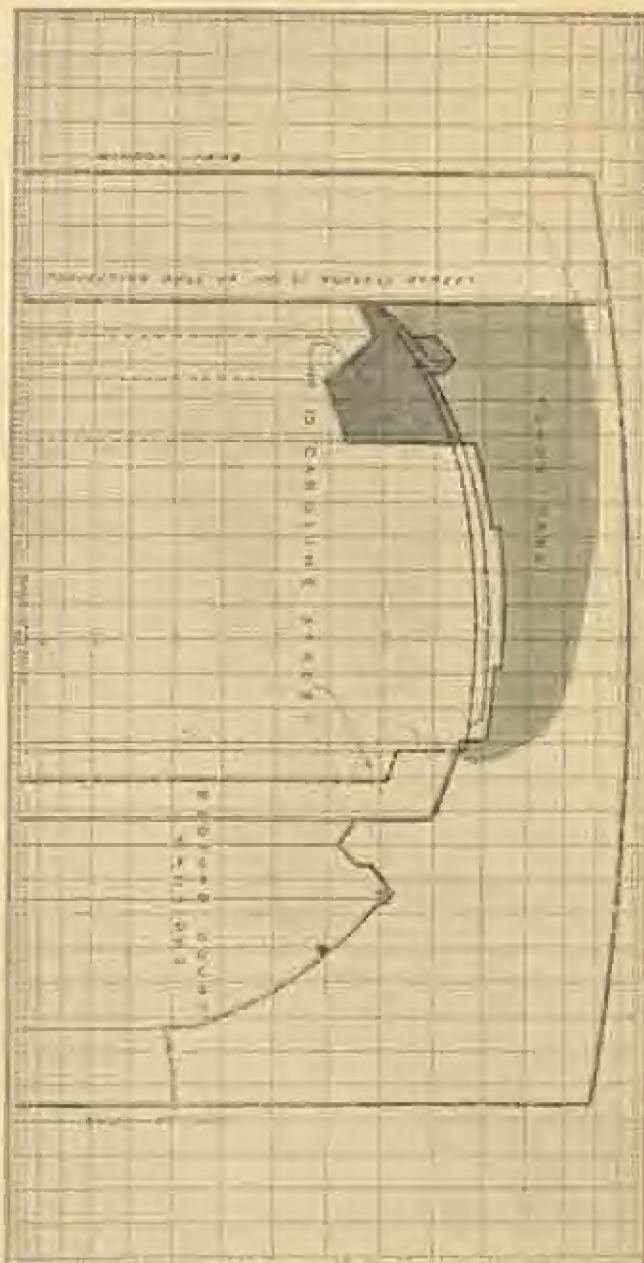
Mr. W. F. Swords, K.C., was the leading counsel for the plaintiffs. The Hon. R. Stafford Cripps, K.C., and Mr. A. C. Nesbitt appeared for the defendants.

## JUDGMENT.

Mr. Justice Bennett gave the following judgment:—

The plaintiffs in this action are Mrs. Goldberg and a limited company, the Sidney Bacon's Pictures, Ltd. Mrs. Goldberg is the owner in fee simple of a house, No. 108, Great Russell Street, in the county of London, and the plaintiffs, The Sydney Bacon's Pictures, Ltd., are lessees of the house for a term of years, of which some seventeen are unexpired. The action is brought against the defendants, who are the owners of No. 15 Caroline Street, and is one in which now the plaintiff's claim is to recover damages against the defendants for illegally obstructing the access of light to No. 108 Great Russell Street. Great Russell Street runs approximately east and west, and Caroline Street runs north and south. The plaintiff's property, No. 108, is three doors east of the point at which Caroline Street joins Great Russell Street, and the defendants' property, No. 15 Caroline Street, is three doors north from Great Russell Street, and on the east side of Caroline Street. Before the matters complained of, at the rear of No. 15 Caroline Street there was a garden which was unbuild upon. The plaintiffs make their claim in respect of the obstruction to two windows, one of which lights the back room on the ground floor of No. 108 Great Russell Street, and the other of which lights the back room on the first floor of that property. Both rooms are used by the plaintiff company for clerical purposes. The two windows look north and look over what in 1927 was the unbuild upon garden of No. 15 Caroline Street. The two windows are the only means by which daylight is admitted to the rooms in question. Each window is about 3 feet 5 inches in width and about 6 feet 2 inches from the sill to the head. Until the month of May, 1927, light was admitted to these two windows over an oldish building known as Bedford Court Mansions, which was distant from the face of the window some 37 feet 6 inches away. The height of Bedford Court Mansions from the ground level to the roof was, I think, 87 feet 4 inches. The whole of the premises in question as they existed before May of 1927 are shown upon the plan and sections which have been proved in evidence, and marked "B and E1." In May of 1927, or shortly after, the defendants began to build upon the site of No. 15 Caroline Street, including the site of what was the garden, and immediately questions arose between the plaintiffs and the defendants with regard to the interference which it was alleged the defendants' building would have upon the access of light to the two rooms in question.

There was a considerable degree of obstruction to the light coming from the sky to the two windows in question by Bedford Court Mansions. The extent to which the old build-



"J.S.B."

Reproduced by permission of Mr. Swarbrick—one of a series prepared by him and used in court on behalf of the defendants.



ing, Bedford Court Mansions, obstructed the access of light to the two windows is shown diagrammatically upon what is described as a Calculating Sheet "J.S.2," prepared by Mr. Swarbrick, which shows the extent to which the old building of Bedford Court Mansions obstructed the direct light to the window of the back room on the ground floor of No. 108 Great Russell Street, and on "J.S.3" the extent to which it obstructed the access of light to the window of the back room on the first floor of No. 108 Great Russell Street. There is no question at all but that a considerable amount of light coming through the windows of the two rooms in question was light which was reflected from the walls of Bedford Court Mansions, walls which were built of gault bricks and afforded a very good reflecting surface. There was at one time standing in the garden of No. 15 Caroline Street a plane tree which was in front of the two windows with which we are concerned, and which it has been said interfered with the access of light to the two windows in question, but, on the evidence, I am not satisfied that the plane tree, which in the course of the defendants' building operations has been cut down, interfered to any substantial extent with the access of light to the windows in question. Photographs which show the plane tree have been put in, in the course of the case, and, except in the Summer months, I do not think it afforded any great obstruction to the access of direct light, and, of course, any interference in the Summer months, when the tree was in leaf, would not be of such great importance, and even then I feel satisfied that a considerable amount passed through the tree, when in leaf, to the windows in question. Since May 1927 the defendants have erected, as I have said, upon the site of Caroline Street, the building of which the plaintiffs complain. It is, of course, considerably nearer to the plaintiffs' windows than Bedford Court Mansions; the side wall of the defendants' building is now some 17 feet 6 inches away from the windows in question. The height is, except at one point, below the height of Bedford Court Mansions, and there is only one part of the defendants' new building which interferes with and obstructs the access of light to the plaintiffs' windows from the sky. That part which obstructs is not at right angles to the plane of the windows (the windows face approximately north), but is to the north-west, and interferes with the light which comes to the windows from the north-west. It is a comparatively small obstruction of the sky, and the extent of it, so far as the ground floor window of No. 108 Great Russell Street is concerned, is shown upon the diagram which I have already referred to, "J.S.2," and also upon the plan "H.D.H.1."

Now the result of a building being erected upon the garden of No. 15 Caroline Street, between the plaintiffs' windows and the old wall of Bedford Court Mansions, has been to put an obstruction between the plaintiffs' building and the wall, from which by reflection the two rooms in question derive a substantial quantity of their light; and, of course, the new building, being sheltered from the light coming from the site by the plaintiffs' own building, is nothing like as good a reflector as the wall of Bedford Court Mansions was before the defendants began their operations, which were completed in the month of June of 1928.

I am satisfied by the evidence of Mr. Barnett, who saw the rooms both before and after the defendants' building was erected, and by the evidence of the plaintiff company's clerks, who worked in the rooms both before and after the defendants' building was erected, that the rooms before the defendants' building was erected were reasonably well lighted. They were rooms in which it was not normally necessary during working hours to use artificial light, except, of course, in the Winter months, when, about half-past three in the afternoon, it became necessary to use electric light. I am satisfied that the result of the defendants' building has been to deprive the two rooms in question of a substantial quantity of light. The witnesses to whom I have referred and whose evidence I rely upon, satisfy me that, since the defendants' building has been

put up, it has been necessary, even in the Summer, in the morning, to use electric light in order that they may carry on their ordinary clerical work, and in my judgment the amount of light of which, as a result of the defendants' act, the plaintiffs have been deprived, is an amount of which the plaintiffs are entitled to complain on the ground that a nuisance has been caused to them. I am also satisfied on this, that the letting value of the plaintiffs' rooms has been diminished, and substantially diminished, as a result of the quantity of light of which they have been deprived, and I think it would be fair to say, taking the two rooms, that they are of something like an annual value of £25 per annum less than they were before the defendants' building was put up. If you capitalise that at fifteen years' purchase, you get at a loss, which I think the plaintiffs have proved that they have sustained, of £225.

Now the question is whether the defendants are liable in damages to the plaintiffs for that sum. I am satisfied by the evidence that the nuisance which the plaintiffs have sustained has not been caused by any obstruction to that light coming from the sky, and it seems to me that, if there had been no interference with the access of light, except the interference arising from the obstruction shown by the increase in the height of the building on "J.S.2," no action would have been brought, and the plaintiffs have failed to satisfy me that any nuisance has been caused by the obstruction of the light coming from the sky. That which, in my judgment, has brought about the diminution of light of which the plaintiffs complain, the real cause of their complaint, is the interference with the light which, until the defendants' building was up, they enjoyed by reflection from the wall of Bedford Court Mansions.

Now it seems to me that that matter is made more or less plain by the correspondence which passed between the solicitors whilst the proceedings were pending, and by the answers which Mr. Waldram gave in cross-examination to Mr. Cripps, when the letters in question were put to him.

The question is a question of law, whether a right by prescription can be acquired to reflected light. I gather that there is not authority for the proposition that a right by prescription can be acquired to reflected light. Of course, it is a question of very considerable importance. If you have a right, or can acquire a right by prescription to light reflected from a wall, it would seem to me that the owner of the dominant tenement would be entitled to obtain an injunction against the owner of the wall, being the servient tenement, from growing creepers upon the wall, which would diminish the reflective capacity of the wall, or from painting the wall with a colour which made it less valuable as a reflecting medium or from pulling down a wall, supposing it to be made of gault bricks which are a good reflecting material, and substituting for those bricks some bricks which were less valuable as a reflecting medium. In the absence of any authority, I do not propose to decide for the first time that an easement for light by reflection can be acquired under the Prescription Act. It seems to me to be entirely contrary to the view entertained by Mr. Justice Maughan in the case of *Price v. Hilditch*, reported in 1930, 1 Chancery, at page 500, the passage which I have in mind being at the bottom of page 505. It is not directly in point, but it seems to me that it never occurred to the learned judge that there could possibly be a right by prescription acquired to light coming by reflection from the building of another person.

That being so, as the plaintiffs have failed in my judgment to prove interference with light to which they have a right by prescription to such an extent as to amount to a nuisance, nothing remains except for me to make an Order, as I do, that the action be dismissed, and it must be dismissed with the usual consequences, namely, that the plaintiffs must pay the costs of it.

Solicitors: Messrs. Herbert Oppenheimer, Nathan and Vandyk, for the plaintiffs; Messrs. Hancock and Willis, for the defendants.



## Allied Societies

*(The attention of Members of the Allied Societies is particularly called to this page)*

### THE ROYAL INCORPORATION OF ARCHITECTS IN SCOTLAND

The first meeting of the current session of the Council of the Royal Incorporation of Architects in Scotland was held at 15 Rutland Square, Edinburgh, on 7 October. Mr. John Watson, A.R.S.A., F.R.I.B.A., Glasgow, President, in the chair. Prior to the meeting, the Members of Council were entertained to luncheon by the President; the prizewinners for past session, and Mr. J. N. Summerson, B.A., editor of *The Quarterly*, being the guests of the Incorporation. At this function, Mr. J. B. Moffat, College of Art, Edinburgh, who gained the Rowand Anderson Scholarship, received the silver medal which is awarded with the prize. The Secretary reported the donations received to date for the Lorimer Memorial Fund, and intimated that representatives of the Architects, Surveyors and Contractors would at an early date resume consideration of the revision of the General Conditions of Contract affecting building works in Scotland. The President stressed the importance of all accredited architects in Scotland being members of the Incorporation through one or other of its five Chapters, and of the R.I.B.A. conjointly.

Mr. J. T. Thomson, Glasgow, was elected a Fellow of the Incorporation, while Messrs. Andrew Douglas, and H. S. McNair, both of Ayr, were elected Associates.

### THE ROYAL VICTORIAN INSTITUTE OF ARCHITECTS.

The Royal Victorian Institute of Architects held an exhibition of current architectural works in Melbourne Town Hall from 1 to 9 August, the exhibition being opened by the Lord Mayor of Melbourne. A brochure has been issued in connection with the exhibition containing photographs of some of the exhibits, including houses at Toorak and at Kew, by Messrs. Butler and Martin, Mr. F. Keith Cheetham and Messrs. C. H. Ballantyne and Associates, the National Gallery, Melbourne, by Messrs. Irwin and Stevenson, and a kitchen interior by Messrs. Oakley and Parkes.

### SOUTH WALES INSTITUTE OF ARCHITECTS.

On Thursday, 25 September, some 50 members and their ladies took part in the summer meeting and ladies' day of the South Wales Institute of Architects.

Visits were paid to three old buildings in the neighbourhood of Chepstow, Monmouthshire, all these being at present in occupation, and the owners very courteously received the visitors. The Swansea contingent proceeded by train to Cardiff, where they entered the motor coaches, and the Newport contingent joined the party en route.

The first inspection was made at St. Pierre, where Mrs. Lysaght received the visitors, and after the features of the old building had been explained, refreshments were kindly provided. The party were fortunate in having with them Dr. Cyril Fox, Director of the Welsh National Museum, who is an honorary member of the Institute, and he acted as guide during the afternoon.

The next visit was to Moynes Court, situated about a few minutes' walk across the fields from St. Pierre. Here General Herbert received the party, who spent some time in exploring his beautiful old house and gardens.

Another walk across the fields took the visitors to Mathern Palace and Church, where Colonel MacNab received them.

His house, which possesses a very charming garden, was formerly the residence of the Bishops of Llandaff, and has a considerable architectural interest, as has also the adjoining old church.

Later in the afternoon the members and their friends took tea at the Beaufort Arms Hotel, Chepstow, when the President of the Institute, Mr. T. Alwyn Lloyd, F.R.I.B.A., presided. He expressed the thanks of those present to the owners of the three delightful old houses for their kindness that afternoon, to Dr. Fox for his valuable services as guide, and to Mr. Ivor Jones, the honorary secretary, for the admirable arrangements for the meeting. Fortunately the weather was very fine, and when the party returned to Cardiff by eight o'clock they felt that this had been a thoroughly enjoyable outing.

### CENTRAL SCHOOL OF ARTS AND CRAFTS.

Session 1930-31.

A series of lectures and visits dealing with the most recent developments in the manufacture and uses of various building materials has been arranged by the Central School of Arts and Crafts and ought to prove of interest to architects and others, who are cordially invited to attend. We print the syllabus below.

### CENTRAL SCHOOL OF ARTS AND CRAFTS.

**CEMENT.**—*Thursday, 16 October, at 7 p.m.*—Visit to the Cement Marketing Company's Laboratory, Portland House, Tottall Street, Westminster. Party limited to 30. *Thursday, 23 October, at 7.30 p.m.*—Lecture by Mr. T. J. Clark, A.I.Struct.E., of the British Portland Cement Association. *Saturday, 25 October, at 2 p.m.*—Visit to Messrs. Johnson's Works, Darford.

**BRICKS AND TILES.**—*Thursday, 27 November, at 7 p.m.*—Lecture by Mr. E. Vaisler at Messrs. W. T. Lamb and Sons' Showroom, 43, Shoe Lane, E.C.4. *Saturday, 30 November, at 2 p.m.*—Visit to Messrs. W. T. Lamb and Sons' Works, Worcester Park.

**STEEL.**—*Thursday, 15 January, at 7.30 p.m.*—Lecture by Mr. J. Smeat Lewis, M.I.Struct.E., M.I.E.E., of Messrs. Dorman, Long and Co., Ltd. *Saturday, 17 January, all day.*—Visit to Messrs. Dorman, Long and Co.'s Works, Middlesbrough. Party limited to 40.

**PILES.**—*Thursday, 16 February, at 7.30 p.m.*—Lecture by Mr. C. I. Cope, B.A.I., A.M.I.C.E., of the London Pressure Piling Co., Ltd. *Saturday, 21 February, at 2 p.m.*—Visit to a London Factory.

**RE-INFORCED CONCRETE.**—*Thursday, 19 March, at 7.30 p.m.*—Lecture by Mr. A. van Osenbruggen of the Trussed Concrete Steel Company, Ltd. *Saturday, 21 March, at 2 p.m.*—Visit to a London Factory.

**STEEL FRAMING.**—*Thursday, 7 May, at 7.30 p.m.*—Lecture by Mr. J. Stuart Lewis, M.I.Struct.E., M.I.E.E., of Messrs. Dorman, Long and Co., Ltd. *Saturday, 9 May, at 2 p.m.*—Visit to Messrs. Dorman, Long and Co.'s Works, Nine Elms.

Most of the lectures will be illustrated by lantern slides and unless otherwise stated will be given at the Central School of Arts and Crafts.



## Obituary

### AIR VICE-MARSHAL SIR SEFTON BRANCKER, K.C.B.

The achievement of Sir Sefton Brancker's life, tragically cut short in the disaster to the airship *R101*, lay mainly in directions not closely connected with architecture. His brilliant and forceful career in the Army and Air Force, and finally as Director of Civil Aviation, has been fittingly recorded elsewhere. His wide interest and activity ranged, however, over the whole body of transport problems—he was President of the Institute of Transport in 1928-1929—and inevitably embraced the vital architectural elements in his subject. Thus it was not formally, but as a keen participant, that he took his place as a member of the jury which assessed the R.I.B.A. Competition for the design of an aerodrome in the spring of 1929. The connection once established, Brancker was not the man to let it go, and he accepted enthusiastically the chairmanship of the Aerodromes Committee of the Institute which was formed later in the year to continue the examination of the vast and pressing architectural problems of aviation which the Competition had helped to reveal. His optimistic forward view and inspiring leadership at once gave positive direction and the widest possible scope to the Committee's work. Now, in mid-course, that leadership is lost to them, to civil aviation, and to the Empire's service.

J. G. D.

### THE REV. P. H. DITCHFIELD [Hon. A.].

We regret to report the death of the Rev. Peter Hampson Ditchfield, author and archaeologist, at Barkham Rectory, Wokingham, at the age of 76.

Educated at Clitheroe Grammar School, and Oriel College, Oxford, he was ordained in 1878. He was Grand Chaplain of Freemasons in England in 1917, and of Mark Masons in the following year. He was at one time editor of the *Journal of the British Archaeological Association* and of the *Berke, Bucks and Oxon Archaeological Journal*. His *Handbook on Gothic Architecture* went through many editions, and the many other volumes from his pen covered a wide range, including the Cathedrals of Great Britain, the national churches of several countries, the story of English counties, towns, and villages, old English customs, the manor houses of England, the old City Companies, and old-time parsons and parish clerks. He was editor of *The Victoria County History of Berkshire*. He was F.S.A., F.R.S.L., F.R.H.S., and Hon. A.R.I.B.A. He had been rector of Barkham since 1886.

### COLONEL WILFRED JOHN HARDCASTLE, V.D. [F.].

The late Colonel Wilfred John Hardcastle was born in 1854 and educated at Lausanne and Stuttgart University. He returned to England at the age of 18 and was articled to Mr. Alfred Waterhouse, R.A., on whose staff he remained for some years. He subsequently practised on his own account, first in Surrey and later at Conduit Street. In 1909 he was appointed District Surveyor at Finsbury and three years later at St. George's, Hanover Square with his office at 9, Conduit Street. He retired from professional practice in 1925.

He had been actively associated with the Volunteer Movement from 1880, when he joined the 10th Middlesex Battalion

(Brompton Rifles) and retired in 1904 with the rank of Lieutenant-Colonel and was awarded Long Service Medal and Volunteer Decoration. The War Office called on him at the outbreak of the War to serve as Divisional Musketry Instructor and he was stationed at Carragh, Cork, Salisbury Plain and Pembroke Dock.

He was a keen Freemason, a Member of Grand Lodge and also of No. 4 Lodge.

He was a great supporter of all the activities associated with the Royal Institute and was elected to follow Henry Vaughan Lanchester as the President of the South-Eastern Society of Architects. His loss will be greatly felt by his colleagues. He was much interested in education in the profession, and he may be said to have died in harness—on the Friday afternoon he was rendering honorary services at the Royal Institute in Conduit Street and suffering greatly from the heat. He returned to his home at Woking and died early the next morning, Saturday, August 30. He will long be remembered as a man of fine character, the truest gentleman and the firmest friend to all those who knew him.

R. GOULBURN LOWELL [A.].

### FREDERICK GEORGE KNIGHT [F. 1896-1914].

By this time, scarcely all the fingers of one hand can be needed for telling off the survivors of the lively band of would-be architects composing Street's office, in Cavendish Square, as I knew it more than fifty years ago. And now, the fast dwindling number is reduced by the loss of F. G. Knight, who was our leading hand for the greater part of my five years there on the staff of assistants. But, even before that term began, Knight and I had met, one Saturday afternoon in the spring of 1874, at Westminster Abbey; he from Street's, and I from Burgess's office. He was then just completing his fine line-drawings, to scale, of the great portal from the east Cloister-walk to the Chapter House\* Vestibule, whilst I was attempting a humbler subject, needing no ladder. Not long afterwards Knight brought to Burgess's office in Buckingham Street a pen-and-ink perspective-drawing that he had been commissioned to make; an interior view showing the chancel, with its proposed decoration, of the church at Studley Royal, Yorks, which Burgess had just built. This beautiful drawing was published in *The Architect*, of 20 June 1874. Already Knight had been discovered as a consummate draughtsman, and in spite of other hours from 9 a.m. to 6 p.m. there was much good work that might be got through outside those hours. It was only after getting back to rooms, when the day's duties had been performed, that one's own work began, work to be pursued till late at night or in early morning, at choice. Those who have ever enjoyed the experience of drawing for one's livelihood will understand. We might say, indeed, that our own master, at Cavendish Square, himself set us an example of sticking to our drawing-board.

I have known the art of architectural draughtsmanship to be defined as a labour, performed largely by driving a point of lead, or steel, in certain directions over a paper-surface, with the guiding help of some pieces of wood or other material, called "squares." After all, it's a case of "the man behind the gun." In such sense, Knight was a master-gunner. Quite a number of the architects of the day had their designs represented in perspective by him; and towards the Academy sending-in day, or a delivery-date for some competition, his pen was in his hand far into the night, night after night. Laughingly he would say that his hand was never so steady as it became after midnight had struck. He was gifted with a touch such as might serve, one would think, for a surgeon, a music-executant, a fencer or a fly-fisherman. Street had

\* The inner doorway, to the Chapter House itself, became the subject, some years later, of another notable drawing by our member, Mr. Ernest C. Sharman. Both these drawings figure as illustrations to Professor Lethaby's writings on the Abbey.



engaged him on looking into a single sketch book he had in his pocket, to show.

After leaving Cavendish Square, Knight settled into an office of his own, in Great College Street, Westminster. Here he kept on doing perspectives, and doubtless other helpful work, for fellow-practitioners: an honourable occupation known, I understand, in one profession as "devilling," in ours as "washing." All in good time he got drawn into the swirling flood of general practice. He even became one of those gallant adventurers in our profession who have offered convincing proof of self-reliance, by designing a house for their own occupation. "Darley," Cottenham Park, down below Wimbledon Common, an abode which I saw Knight build and then enlarge, as his family grew, remained a happy home to him for many a year.

WALTER MILLARD [R.F.].

#### A. A. HUDSON, K.C.

The loss of a strong character leaves a blank in the lives of those who have been in constant contact with it.

For nearly forty years I shared the chambers of Alfred Arthur Hudson, and during that time there was little of what he did in professional or private affairs which was not discussed between us.

An indefatigable activity of mind and body assisted him to maintain the standard of untiring thoroughness which was the keynote of his life, and it enabled him to be one of the happy few who work to within a few days of their death.

At school in Switzerland he became a first-class draughtsman. He went to Ewan Christian (a past-President of the R.I.B.A.), then a leading ecclesiastical architect, and announced that he desired to be articled without premium. Ewan Christian was naturally surprised, and was quite frank about his feelings, but on seeing some of the applicant's drawings said, "You can come when you like."

Later he went to Southsea and was successful in acquiring an excellent practice. But the Bar attracted him, and when over thirty years of age, without any private fortune and without influence to get him work, he abandoned his practice as an architect and became a member of the Inner Temple, being "called" in 1883. This was only one example of the courageous way in which he always acted on his convictions. He "took silk" in 1910.

For many years he occupied a unique position at the Bar as an authority on building matters, and his book on *Building and Engineering Contracts* is, and has long been, an indispensable textbook for all engaged in this work.

He was not, in the ordinary sense of the word, a great advocate, but the care with which his cases were got up, and his absolute honesty in the presentation of them, made him a very formidable opponent. No trouble was too great in the investigation of facts, nor in the consideration of the best course to be adopted, whether it was one of his own cases, or the work of someone (myself, for instance) who had come to him for help.

The same qualities made him an excellent negotiator, and he liked to get the parties together at a round table conference, where this was in any way possible, and such conferences usually resulted in a friendly settlement.

He was the regular adviser of many public authorities and big contractors, and in one instance I know that millions were expended under contracts settled by him, without litigation or arbitration throughout many years. The letters received from clients, lay and professional, show that he was most warmly regarded as a friend, as well as regretted as an adviser.

He was the legal member of the Tribunal of Appeal under the London Building Act from 1895 till his death, being President from 1906 onwards; and he held many other appointments.

As a Benchler of the Inner Temple he rendered great services to that Inn; the business of the various committees of which he

was a member received the same careful and laborious study as his own cases, and he has left behind him, in the Bench Smoking Room and other improvements, a beautiful memorial of his taste.

His principal hobby was the development of property. He owned land at Felxstowe, and the shops and houses on it erected in accordance with his own plans, or plans carefully revised by him, proved an excellent investment. Later, he bought a property of quite a different class, in the Chiltern Hills near Wendover. It would be no exaggeration to say that he used this property to paint pictures, or perhaps rather decorative colour schemes, with trees as his pigments, which were modified and developed as the years went on. He planted over a million trees there, arranged in patterns on what had been mostly bare downs, fir, maple, wild cherry, beech, copper beech and yew, all with proper consideration for the soil they preferred and the soil available. The effect, especially in spring or autumn is a blaze of colour which must be seen to be believed. Not long ago, at the request of the Editor, he wrote an interesting article on his methods, which appeared in *Country Life* with photographs taken by himself.

An illustration of the feelings he inspired in those with whom he came in contact can be found in Mr. Sydney Tatchell's note in *The Times* of 20 August last.

A. I.

#### A. H. RYAN TENISON [F.].

There passed away on Monday, 22 September, a well-known and much respected member of the architectural profession, Mr. A. H. Ryan Tenison, F.R.I.B.A. He had been ailing for some time, but a holiday at Torquay had so improved his appearance of health that his family and friends were hopeful of a complete recovery. He had been on the previous Wednesday to the opening of the Building Exhibition and came home rejoicing in the meeting of many old friends. In the evening, as he sat reading, a stroke fell upon him and unconsciousness from which he never recovered. Mr. Tenison who was an F.S.A., Ireland, was the son of Dr. Tenison of Uxbridge Road, W., a retired naval surgeon, the son of an Irish Archdeacon, and grandson of an Irish Bishop. His Irish clerical connections probably accounted for the large number of his clerical friends, some of them fast friends. He began his professional life as a student at Guy's Hospital, to follow in his father's footsteps, but afterwards gave up the idea of medicine for architecture. Though later he often expressed regret at the change, he developed a fine facility with the pencil. Under Somers Clarke and Micklethwaite he soon showed the artistic temperament which later on characterised his every design whether of church, school, or dwelling-house. Many pictures of his buildings found a place on the walls of the Royal Academy. Some of his forbears were clergy, some doctors; he was the first architect in the family. Archbishop Tenison, who built the school which went by his name in Leicester Square and now overlooks the Oval at Kennington, was brother of one of Mr. Arthur Tenison's ancestors, and Mr. Arthur was invited by the Governors to design the new school both on the score of his ancestry and because of his own eminence as a school architect. Some of the buildings of Radley College are his. St. John's College, Battersea, Sir Walter St. John's School, Battersea Grammar School, the Goldsmiths' College at New Cross, the Hall at St. Gabriel's College, Camberwell, all bear trace of his hand. He designed new churches at Beckton, William (Herts), Athsey (Beds), and a fine one, which was never built, for Shenley (Herts). He was responsible for alterations to other churches, and for the remodelling of some 300 church schools as well as for building 20 new ones. He had always an eye for the capabilities of an old building, whether church or school. The old church schools afforded him great opportunities. It was said of an old church in Surrey, to which he added a vestry, that after a



few years it was difficult to distinguish the new work from the old. At the time of his recent retirement he had just built a new senior church school at Norwich, and made plans for senior and junior church schools at Bury St. Edmunds. He also designed the Royal Navy Submarine Memorials at Shotley and on the Victoria Embankment. His bright and cheery personality will be greatly missed by his friends.

R.I.P.

#### WILLIAM ALAN NORBURY [A.]

Died 26 April, 1930. Age 29 years.

W. Alan Norbury was elected Associate in 1925, after graduating at Manchester University, and his untimely death has deprived architecture of a remarkable young man who gave promise of going far in the profession.

A short and joyous tone in Italy obviously coloured his attitude towards architecture, strengthening and deepening the earlier training and tendencies.

In 1926 he spent six months in the office of York and Sawyer of New York, where his acquaintance with American methods, although valuable, confirmed his regard for the English practice and tradition.

During four years in the office of Mr. Harry S. Fairhurst, of Manchester, he dealt with a variety of buildings, commercial and domestic, with a special leaning to the latter, in which he was very interested and always well informed.

His work showed him to be an original and independent thinker, a student of tradition, and the best modern work, to which he was critically alive with a growing enthusiasm.

Of culture and rare charm and with a keen sense of humour, his relations with his fellows were always happy and his office associates feel the loss of a personality of kindness and distinction.

#### FUNERAL OF SIR ASTON WEBB

At the funeral service for Sir Aston Webb which took place in St. Paul's Cathedral on 25 August, Canon S. A. Alexander officiating, the following names were unfortunately omitted from the list of those present which we published in the last issue of the *Journal*:—Lady Webb, Miss Webb, Mr. and Mrs. Maurice Webb, Mr. Harold Webb, Mr. Geoffrey Webb, Mrs. Buchanan, Miss Isabel Evans, Mr. Christopher Webb, Mr. and Mrs. J. Ferguson, Mr. and Mrs. Humphrey King, Mr. Herbert Evans, Mr. Douglas Marshall Webb, Mrs. Robie, Mrs. Barlow Webb, Miss Barlow Webb, Mrs. Dowsett, Mrs. Wilson, Mrs. Woolridge, Mrs. Kane, Mr. Edward Appleyard, Mr. and Mrs. Rollo Appleyard, Mr. Donald Ferguson, Mr. and Mrs. Percy Webb, Mr. Reginald Bessent, Sir John and Lady Litchby, Mr. Richard Kane, Dr. Geoffrey Evans, Mrs. Barker, and Mr. Maurice B. Adams.

#### R.I.B.A. PROBATIONERS.

During the month of September 1930 the following were registered as Probationers of the Royal Institute:—

- ABEL: CYRIL MESSALL, "Creepstones," Hunt Creek, Liverpool.  
 ARTHUR: WILLIAM, 71 Casile Dene, Prudhoe-on-Tyne.  
 BARNES: PHILIP MAYHEW, Add Mallow, Queensgate, Basingstoke.  
 BIRD: JEAN MOORE, "Kingsbridge," Duffryn Road, Southend-on-Sea.  
 BOSTON: THOMAS LINDRAY, Glerlee, Clarkson, Glasgow.  
 BRYALL: GORDON CHARLES, 46 Bonarville Avenue, Chatham.  
 BURTEN: JAMES HUGHES, St. Paul's College, Sydney University, Sydney, N.S.W., Australia.  
 BULLOCK: ALFRED, The Glade, Angham, near Ormskirk.  
 BUNNEY: MICHAEL JOHN HEWETSON, 13 Meadow, Hampstead Garden Suburb, N.W.17.

- CAUBON: ALBERT HENRY, 316, Bordesley Green East, South Yardley, Birmingham.  
 CLINE: STUART, "Elmhurst," Newburgh Road, Wormit, Fife.  
 CHALLAN: HENRI PARNELL, Cardlane Court, Much Hadham, Herts.  
 DAVID: IVOR ARTHUR, 18, Conway Road, Cardiff.  
 DEVEREAUX: ALAN HENRY, Gusion Cliff, Lowestoft.  
 D'LIMA: WILLIAM JOHN, 90 St. Andrew's Road, Bandra, Bombay 25, India.  
 DUNE: GEORGE CLIFFORD, 15 Upper Avenue, Eastbourne.  
 ELSEY: ARTHUR VALENTINE, 57 Rosebery Road, Muswell Hill, N.10.  
 BRANDEN: RAJARAM KISHORE, c/o C. G. Blomfield, F.R.I.B.A., P.S.I., Architect, Prem House, New Delhi, India.  
 FOUNTAIN: EDGAR WALTER, 92 Westcott Drive, Leicester.  
 FRASER: ALEXANDER, 87 Osborne Place, Aberdeen.  
 GARWOOD: RONALD ROBERT ARTHUR, 17 St. Peter's Street, Lowestoft.  
 GORD: ARTHUR BERNARD VAUGHAN, The Manor House, Broughton, Blechley, Bucks.  
 GRAVES: LILA JULIET, 5 London Road, Sheet, Petersfield, Hants.  
 GRAY: RICHARD WYNDHAM, Galloway House, near Yeovil.  
 GREEN: DAVID JOHN, "North End," Yarmouth Road, Lowestoft.  
 GREEN: JAMES GLAISTONE, P.O. Box 112, Broken Hill, Northern Rhodesia.  
 HARRISON: RICHARD ARTHUR, Hartbovet, Blackwater, Hants.  
 HEAD: KATHERINA EILEEN MARIE GAMBON, 8 Livingston Drive, Sefton Park, Liverpool.  
 HEATH: WALTER FRANCES GERARD, 35 Chadleigh Road, Brodley, S.E.4.  
 HIPPLEY-CONE: ANTONY DUNCAN, Deizell, Worthy Road, Winchester, Hants.  
 HURRY: HENRY JOHN, "Rennham," Effingham Road, Downside, Cobham, Surrey.  
 JENNENS: STANLEY WALTER, 12 Edgbaston Road, Balhall Heath, Birmingham.  
 JOHNSON: NORMAN WILLIAM, 13 Balmoral Road, Doncaster.  
 JOHNSON: NINIAN RUTHERFORD JAMIESON, 176, Kent Road, Kelvingrove, Glasgow, C.5.  
 JORDAN: ERNEST DENNIS, 61 Chapel Street, Barwell, Leicester.  
 JUPERT: RAYMOND FRANK AINSALL, 9 Ronald Park Avenue, Westcliff-on-Sea, Southend-on-Sea, Essex.  
 KIRTOW: ROBERT KENNETH, 8 Fortis Gate, Amatey, near Leicester.  
 KIRKP: JOHN LILIE, 35 Linden Road, Gosforth, Newcastle-on-Tyne.  
 LANCHBSTER: HENRY ROBERT, 19 Bedford Square, W.C.1.  
 LEWIS: EDWARD REGINALD CHARLES, 11 Upper Phillimore Gardens, Kensington, W.8.  
 MACARTNEY: ROBIN HALLIDAY, Les Vaux, St. Saviour's, Jersey, C.I.  
 MACK: AUGUSTUS HENRY, "Kincora," 8 Watlingale Road, Mossman, Sydney, N.S.W., Australia.  
 MERRITT: ERNEST GEORGE, 310 Goldhawk Road, Hammer-smith, W.6.  
 MITCHELL: DOUGLAS WILLIAM, The Lodge, Leek Wootton, near Wareick.  
 MOLTENO: MALCOLM CHRISTIAN, 46 Burnham Court, W.4.  
 MURPHY: CHARLES GIBSON, 2 Linden Terrace, Newcastle Road, Sunderland.  
 OWEN: PATRICIA JOAN, 37 Redcliffe Square, London, S.W.10.  
 PAGE: TERENCE CULLEN, 8 Cedars Road, W.4.  
 PAYNE: THOMAS, 488 Norwich Road, Ipswich.  
 PHARCE: PHILIP FOSTER, c/o Australia House, Strand, W.C.2.  
 PRETHARD: CYNTHIA, Finborough Hall, Stowmarket, Suffolk.  
 PYM: JOHN, Foxwold, Brasted, Kent.  
 REED: WILLIAM JAMES, 6 Rosebery Street, Aberdeen.



RICHARDSON: JOHN CHARLES, "Bohemie," Richmond Road, Hmity, N.B.

SACNDERS: JOHN GOWIE, Field End Lodge, Eastcote, Middlesex.

SAUNDERS: ROBERT WILLIAM, 5 Orpington Street, Ashfield, New South Wales, Australia.

SKEDAY: JOHN TREVOR, "Veere," Meadowcourt Road, Leicester.

SOMERVILLE: JAMES LEE, 22 Mansfield Avenue, Musselburgh, Midlothian.

STRELL: DAVID WILSON, 11 Tay Square, Dundee.

TAYLER: HERBERT, "Bramide," Macclesfield Road, Buxton, Derbyshire.

THOMSON: DOUGLAS ALBERT, "Arthog," The Uplands, Loughton, Essex.

THORNLEY: MICHAEL ERIC, 1 Diamond's Green, West Kirby, Cheshire.

TOURAY: CHARLES RICHARD, 20 St. John Street, Lord Mayor's Walk, York.

TRIMBLE: JOHN GERARD, St. Paul's College, Newtown, Sydney, N.S.W., Australia.

VICKERS: ANTHONY IAN ARCHIBALD, Lucas's, Haywards Heath, Sussex.

WARD: ELIZABETH MURRAY, Willow Lodge, Hemstead, Glos.

WARREN: EDWARD PETER, Fifehead, Chislehurst, Kent.

WENACOTT: JAMES ALBERT, "Kia-Ora," Palmers Avenue, Westcliff.

ZEMATE: JOHN LOUIS CORRIEUS, 805 Fulham Road, S.W.5.

R.I.B.A. (ARCHIBALD DAWNAY) SCHOLARSHIPS,

1930-1931.

In accordance with the terms of the Will of the late Sir Archibald Dawnay, the Royal Institute of British Architects have awarded one Scholarship of £75 for the academical year 1930-1931 to Mr. J. A. Pinchard of the Department of Architecture, Surveying and Building of the Northern Polytechnic, London, N., and one Scholarship of £50 for the academical year 1930-1931 to Mr. Arthur Roberts of the Liverpool School of Architecture, University of Liverpool.

Mr. F. J. M. Ormrod of the Liverpool School of Architecture, University of Liverpool, who was awarded a Scholarship of £75 for the academical year 1929-1930, and Mr. J. P. Ward of the Welsh School of Architecture, the Technical College, Cardiff, who was awarded a Scholarship of £50 for the academical year 1929-1930, have been granted renewals of their Scholarships for the year 1930-1931.

The Scholarships are intended to foster the advanced study of construction and the improvement generally of constructional methods and materials and their influence on design.

#### R.I.B.A. PRIZES FOR SECONDARY SCHOOLS.

The Council of the Royal Institute of British Architects have decided to increase the annual value of the R.I.B.A. Prizes for Secondary Schools from £5 to £10-10s.

The Prizes are offered annually by the R.I.B.A. for competition between boys and girls in Secondary Schools, and are intended to encourage interest in Architecture.

## Examinations

#### R.I.B.A. FINAL EXAMINATION: INDIA.

The R.I.B.A. Examination Board in India have arranged to hold the R.I.B.A. Final Examination in Bombay from 29 October to 6 November, 1930.

#### R.I.B.A. STATUTORY EXAMINATION FOR THE OFFICE OF DISTRICT SURVEYOR AND THE EXAMINATION FOR THE OFFICE OF BUILDING SURVEYOR.

The R.I.B.A. Statutory Examination for the office of District Surveyor under the London Building Acts, and the Examination for the office of Building Surveyor under Local Authorities, will be held at the R.I.B.A., London, on 6, 7 and 8 May 1931.

The closing date for receiving application for admission to the Examinations, accompanied by the fee of £3 3s., is 15 April.

Full particulars of the Examinations and application forms can be obtained from the Secretary R.I.B.A.

#### EXHIBITIONS OF DESIGNS OF STUDENTS EXEMPTED FROM THE R.I.B.A. INTERMEDIATE AND FINAL EXAMINATIONS.

The designs of students of Schools of Architecture recognised for exemption from the R.I.B.A. Final Examination are on exhibition in the R.I.B.A. Galleries, 9 Conduit Street, London, W.1, till 26 October, between the hours of 10 a.m. and 8 p.m., Saturday 10 a.m. and 5 p.m.

The R.I.B.A. Silver Medal for Recognised Schools, and £5 in books, is awarded for the best set of drawings submitted.

The designs of students of Schools of Architecture recognised for exemption from the R.I.B.A. Intermediate Examination will be exhibited in the R.I.B.A. Galleries from 24 to 31 October 1930, inclusive, between the hours of 10 a.m. and 8 p.m., Saturday 10 a.m. and 5 p.m.

The R.I.B.A. Bronze Medal for Recognised Schools, and £5 in books, is awarded for the best set of drawings submitted at this exhibition.

#### R.I.B.A. EXAMINATIONS.

INTERMEDIATE EXAMINATION.—November 21, 22, 23, 24, 25 and 27, 1930. (Last day for receiving applications, October 7, 1930.) June 3, 6, 8, 9 and 11, 1931. (Last day for receiving applications, May 5, 1931.) November 20, 21, 23, 24 and 26, 1931. (Last day for receiving applications, October 20, 1931.)

FINAL EXAMINATION.—December 3, 4, 5, 6, 8, 9, 10 and 11, 1930. (Last day for receiving applications, November 3, 1930.) July 8, 9, 10, 11, 13, 14 and 16, 1931. (Last day for receiving applications, June 8, 1931.) December 2, 3, 4, 5, 7, 8 and 10, 1931. (Last day for receiving applications, November 2, 1931.)

SPECIAL EXAMINATION.—December 3, 4, 5, 6, 8 and 9, 1930. (Last day for receiving applications, November 3, 1930.) July 8, 9, 10, 11, 13 and 14, 1931. (Last day for receiving applications, June 8, 1931.) December 2, 3, 4, 5, 7 and 8, 1931. (Last day for receiving applications, November 2, 1931.)

SPECIAL EXAMINATION IN DESIGN FOR FORMER MEMBERS OF THE SOCIETY OF ARCHITECTS.—December 3, 4, 5, 6, and 8, 1930. (Last day for receiving applications, November 3, 1930.) July 8, 9, 10, 11 and 13, 1931. (Last day for receiving applications, June 8, 1931.) December 2, 3, 4, 5 and 7, 1931. (Last day for receiving applications, November 2, 1931.)

SPECIAL EXAMINATION OF LICENTIATES TO QUALIFY AS FELLOWS.—November 17, 18, 19, 20 and 21, 1930. (Last day for receiving applications, October 17, 1930.) April 20, 21, 22, 23 and 24, 1931. (Last day for receiving applications, March 20, 1931.) November 16, 17, 18, 19 and 20, 1931. (Last day for receiving applications, October 16, 1931.)



STATUTORY EXAMINATION FOR DISTRICT SURVEYOR AND THE EXAMINATION FOR BUILDING SURVEYOR.—October 15, 16 and 17, 1930. (Last day for receiving applications, September 24, 1930.) May 6, 7 and 8, 1931. (Last day for receiving applications, April 15, 1931.) October 14, 15 and 16, 1931. (Last day for receiving applications, September 23, 1931.)

TOWN PLANNING EXAMINATION.—June 24, 25, 26 and 29, 1931. (Last day for receiving applications, March 2, 1931.)

### FINAL EXAMINATION.

#### ALTERNATIVE PROBLEMS IN DESIGN FOR THE YEAR ENDING 31 DECEMBER 1931.

##### *Instructions to Candidates.*

1. The drawings, which should preferably be on uniform sheets of paper of not less than Imperial size, must be sent to the Secretary of the Board of Architectural Education, Royal Institute of British Architects, 9, Conduit Street, W.1, on or before the dates specified below.

2. Each set of drawings must be signed by the author, AND HIS FULL NAME AND ADDRESS, and the name of the school, if any, in which the drawings have been prepared, must be attached thereto.

3. All designs, whether done in a school or not, must be accompanied by a declaration from the student that the design is his own work, and that the drawings have been wholly executed by him. In the preparation of the design the student may profit by advice.

4. Drawings for subjects (a) are to have the shadows projected at an angle of 45° in line, monochrome, or colour. Drawings in subjects (b) are to be finished as working drawings. Lettering on all drawings must be of a clear, scholarly, and unaffected character.

5. After a design has been approved it may be re-submitted together with the specified working drawings on any of the dates for submission of drawings given below.

6. All candidates taking the Final Examination in 1932 and subsequent years will be required to include in the four Testimonies of Study for which they must secure approval before being admitted to the Examination, one out of the two subjects set annually as R.I.B.A. Problems in Design involving a simple acoustic treatment with calculations to give the appropriate time of reverberation. The two subjects set for 1931 which may be treated acoustically are Problems Nos. CXVIII and CXXI. A list of articles and books on the subject to guide candidates in obtaining the necessary information may be obtained free on application to the Secretary R.I.B.A.

##### CXV.

(b) Working drawings for Subject No. CXIII (a). *A Housing Scheme in the North-West London Area.*

The design for a first pair or group of cottages along the Estate Road on the South-East side of that road may, after it has been approved, be re-submitted with complete working drawings to the scale of 8 feet to 1 inch, with detail elevations facing the two roads to the scale of half-inch to 1 foot.

##### CXVI.

(b) Working drawings for Subject No. CXIV (a). *A Secondary School for about 200 Boys.*

The design for a Secondary School for about 200 boys may, after it has been approved, be re-submitted with half-inch details of a portion of the front including the main entrance, and full-size details.

##### CXVII.

(a) *A design for a Shopping Arcade.* An island site, measuring 250 feet by 150 feet, with streets on all sides, in the shopping district of a large town, is to be developed as a shopping arcade. A pavement will surround the entire site, towards which shops may face, as well as on to an arcade or arcades, which latter may suitably be top-lighted. It may be assumed that the demand will be mainly for small shops, although it should be

possible for one shop to occupy several bays or sections if desired. Ample show space should be provided, with storage either in basements or on first floors or galleries. Small office accommodation for use with the shops should be provided, but independent office accommodation over the shops is not required. The arcades will be open at night and artificially lighted. Facility of police supervision should, therefore, be considered. The scheme should also provide the following:—

Lavatories and rest room for both sexes for shop assistants.  
Small office for superintendent and letting agent.  
Heating chamber.

Provision for collection and disposal of refuse.

##### *Drawings required:—*

Plan of all floors to one-sixteenth-inch scale.

Two street elevations to one-sixteenth-inch scale.

Sufficient sections to show the design generally, and particularly the arcades, to one-sixteenth-inch scale.

Detail of one bay of street elevation, and one bay of arcade to half-inch scale.

(b) *Working drawings for a Shopping Arcade.* The design for a Shopping Arcade may, after it has been approved, be re-submitted with the addition of working drawings showing the Ground Floor plan and longitudinal and cross sections through arcade to one-eighth-inch scale.

##### CXVIII.

In accordance with Instruction to Candidates number 6 (above), Section (a) of Problem in Design number CXVIII may be treated acoustically.

(a) *A design for a Pump Room.* At a Spa such as Bath or Leamington it is proposed to erect a Pump Room in which the medicinal waters can be taken.

*Site.* The road frontage is 200 feet; the site is of considerable depth and gives access to Public Gardens. The buildings are to be placed in close proximity to the road, with a lay-out of terraces, etc., towards the Public Gardens. The ground has a slope of 1 foot in 5 feet down from the roadway.

*Accommodation.* A large hall must be provided, about 4,000 square feet, this to include space for the medicinal spring or fountain, a band platform, recesses, colonnades, or other architectural features. Particular attention should be paid to the provision of good natural lighting and a view over the terraces and gardens, to which latter there should be easy access.

The following additional accommodation will be required:—

Reading Room.

Writing Room.

Small Service Rooms.

Staff Rooms and Bandroom.

Cloakrooms and Lavatories.

##### *Drawings required:—*

One-sixteenth-inch scale lay-out plan showing buildings and immediate surroundings.

Plus, cross section and elevations of entrance and garden frontages, all to one-eighth-inch scale.

Half-inch detail of the fountain.

(b) *Working drawings for a Pump Room.* The design for a Pump Room may, after it has been approved, be re-submitted with the addition of a half-inch cross section through the building showing the roof construction, together with one-eighth-inch scale working drawings.

##### CXIX.

(a) *A design for a Branch Bank on a corner site.* A Branch Bank is to be built on a level corner site at a junction of a main and a side road. The site has a 50 feet frontage to the main road, and a 90 feet frontage to the side road, part of which may be left open as a garden.

##### *Accommodation required:—*

Banking Hall (approximately fifteen clerks).

Shop to Main Road, and so arranged that it can be taken into Banking Hall at a later date.

Manager's Room and Waiting Room.



Stairs and lift to Strong Room in basement.  
Male and female Lavatories.

Two or three average size Flats above Bank with entrance from side street.

**Drawings required:—**

Plans, sections and elevations to scale of one-eighth-inch to a foot.

Section through the Banking Hall, showing fittings, to scale of half-inch to a foot.

(b) *Working drawings for a Branch Bank on a corner site.* The design for a Branch Bank on a corner site may, after it has been approved, be re-submitted with the addition of:—

Working drawings of the main front with plans and sections of front to a scale of half-inch to a foot, with a sheet of full-size details.

**CXX.**

(a) *A design for a Housing Scheme.* On the north bank of a tidal river in Essex lies a level site having a river frontage of 100 yards; depth from the river, 242 yards. The western boundary is formed by an existing road at right angles to the river, with a few shops on its west side. The eastern boundary is the dock wall, which is diagonal to the river. The length of the north boundary of the site is 300 yards. There is an embankment road on the south side of the site, terminating in the dock gates at the south-east corner of the site. It is desired to build on this piece of land 20 two-bedroom flats, with a floor area of about 600 feet super each; 10 three-bedroom parlour type houses, with a floor area of 920 feet super each; 20 three-bedroom non-parlour houses, floor area 820 super feet each.

**Drawings required:—**

Complete lay-out with roads, paths, gardens, etc., showing all buildings to a scale of one upon five hundred; elevation of south and west sides of complete scheme to a scale of 16 feet to the inch.

Plan of one floor of the flats.

Plans and two elevations of one cottage to a scale of 8 feet to the inch.

(b) *Working drawings for a Housing Scheme.* The design for a Housing Scheme on the north bank of a tidal river in Essex may, after it has been approved, be re-submitted with the addition of a working drawing to half-inch scale, showing one complete section and two elevations of a block of the flats.

**CXXI.**

In accordance with Instruction to Candidates number 6 (above), Section (a) of Problem in Design number CXXI may be treated ecologically:

(a) *A design for Offices for an Association of Manufacturers.* A group of important foreign industrial concerns have secured a corner site in London for their use as a common meeting place, and also to provide accommodation for their Chairman when in town. The site is level and rectangular, having a frontage of 60 feet to a main street and 80 feet to a side street.

**Accommodation required:—**

Top-lighted Conference Room, to accommodate 50, with raised Dais at one end; area about 800 square feet.

Retiring Room to accommodate six, with private external entrance.

Committee Room.

Waiting Room.

Entrance Hall, Staircase and Lifts.

Lavatories and Cloakrooms.

Chairman's Sitting Room, with Servery adjoining, Bedroom, etc.

Bathroom.

General and two Private Offices.

Caretaker's Living Room, two Bedrooms, and Bathroom, with Kitchen in touch with the Servery, but not necessarily on the same floor.

**Drawings required:—**

Plans of each floor, two elevations and one section, to eighth-inch scale, and a detail of a small portion of the building to half-inch scale.

(b) *Working drawings for Offices for an Association of Manufacturers.* The design for Offices for an Association of Manufacturers may, after it has been approved, be re-submitted with the addition of working drawings of the front and of the roof over the Conference Room to half-inch scale, with a sheet of full-size details.

**CXXII.**

(a) *A design for an Entrance to a Botanical Gardens.* A new main Entrance to a Botanical Gardens is to be formed on a bye-pass road.

The gates should be well set back from the roadway. Turnstile entrances for pedestrians, and also entrance and exits for carriages must be provided; due regard must be paid to persons and carriages entering and leaving the grounds.

An office for attendants, small shop for the sale of postcards and guides, and cloakrooms are to be incorporated in the entrance design.

**Drawings required:—**

Plans, elevations and sections, scale eighth-inch to 1 foot.

A portion of this scheme to be detailed to half-inch.

(b) *Working drawings for an Entrance to a Botanical Gardens.* The design for the Entrance to a Botanical Gardens may, after it has been approved, be re-submitted with the addition of complete eighth-inch scale working drawings and such half-inch details as would be required by the builder.

**Dates for the Submission of Designs in 1931.**

Subject CXVII	27 Feb.	Subject CXX	31 Aug.
Subject CXVIII	30 April	Subject CXXI	30 Oct.
Subject CXIX	30 June	Subject CXXII	31 Dec.

## Notices

SPECIAL MEETING, MONDAY, 20TH OCTOBER 1930, at 8 p.m.

### DEVELOPMENT OF THE CITY OF WASHINGTON.

An interesting collection of Lantern Slides illustrating the Development of the City of Washington will be shown by Mr. Frank C. Baldwin, Secretary of the American Institute of Architects, at a Special Meeting of the R.I.B.A. to be held on Monday, 20th October, at 8 p.m. Members and their friends are cordially invited to attend.

### THE INAUGURAL GENERAL MEETING: MONDAY, 3RD NOVEMBER 1930, at 8.30 p.m.

The Inaugural General Meeting of the Session 1930-31 will be held on Monday, 3rd November 1930, at 8.30 p.m., for the following purposes:—

To read the Minutes of the Fifteenth General Meeting (Business) of the Session 1929-30, held on 16th June 1930; formally to admit members attending for the first time since their election.

Sir Banister Fletcher, F.S.A., President, to deliver the Inaugural Address of the Session.

To announce the Council's nomination for the Royal Gold Medal, 1931.

### ORDINARY GENERAL MEETINGS.

SESSION 1930-31.

Mondays—at 8 p.m., except where otherwise stated 1930.

Nov. 3.—INAUGURAL MEETING, 8.30: President's Address.



1930.

Nov. 17.—GENERAL MEETING: "Public Control of Building: The Position in 1930," by A. N. C. SHELLY.

Dec. 1.—GENERAL MEETING: "Modern Cinema Design," by J. R. LEATHART [F.].

1931.

Jan. 5.—GENERAL MEETING: Award of Prizes and Studentships. Criticised by T. A. DARCY BRANDELL [F.] on work submitted for Prizes and Studentships.

" 19.—GENERAL MEETING, 8.30: Presentation of London Architecture Medal 1929, and Medals and Prizes, 1931.

Feb. 2.—GENERAL MEETING: "The Decoration of Buildings," by Professor W. ROTHENSTEIN, M.A.

" 16.—GENERAL MEETING: "The Work of Sir Robert Lorimer," by F. W. DEAS, M.A. [F.].

Mar. 2.—GENERAL MEETING, 8.30: Presentation of the Royal Gold Medal.

" 16.—GENERAL MEETING: "The Treatment of Old Buildings," by C. R. PEERS, C.B.E., F.S.A. [F.].

Apr. 13.—GENERAL MEETING: "Modern Flats," by G. GREY WORMUM [F.].

" 27.—GENERAL MEETING: "Modern Bridges," by MAXWELL AYTON [F.].

June 1.—GENERAL MEETING: "Museum Planning," by ERIC MACLAGAN, C.B.E. [Hon. A.].

#### MEMBERSHIP OF THE R.I.B.A. THE LICENTIATE CLASS.

The revised Bye-laws of the Royal Institute of British Architects have received the approval of His Majesty's Privy Council, and applications may now be sent in for membership of the R.I.B.A. in the Licentiate Class. Full information and the necessary forms will be sent on application being made to the Secretary R.I.B.A., 9 Conduit Street, London, W.1.

#### ASSOCIATES AND THE FELLOWSHIP.

Associates who are eligible and desirous of transferring to the Fellowship are reminded that if they wish to take advantage of the election to take place on 3 January 1931, they should send the necessary nomination forms to the Secretary R.I.B.A. not later than Saturday, 8 November 1930.

#### LICENTIATES AND THE FELLOWSHIP.

The attention of Licentiates is called to the provisions of Section IV, Clause 4 (b) and (c)(i), of the Supplemental Charter of 1925. Licentiates who are eligible and desirous of transferring to the Fellowship can obtain full particulars on application to the Secretary R.I.B.A., stating the clause under which they propose to apply for nomination.

#### OVERSEAS APPOINTMENTS.

Members contemplating applying for appointments overseas are recommended to communicate with the Secretary R.I.B.A., who will supply them with any available information respecting conditions of employment, cost of living, climatic conditions, etc.

WILLIAM H. HAMLYN,

Hon. Sec. R.I.B.A., Salaried Members' Committee.

#### COMPOSITION OF MEMBERS' SUBSCRIPTIONS FOR LIFE MEMBERSHIP.

The attention of Members is drawn to the scheme for compounding subscriptions for Life Membership which was approved by the General Body at the Business Meeting held on Monday, 5 December 1927.

Fellows, Associates and Licentiates of the Royal Institute may become Life Members by compounding their respective annual subscriptions on the following basis:—

For a Fellow by a payment of £73 10s. (70 guineas),

For an Associate or Licentiate by a payment of £44 2s. (42 guineas), with a further payment of £29 8s. on being admitted as a Fellow.

Provided always that in the case of a Fellow or Associate the above compositions are to be reduced by £1 1s. per annum for every completed year of membership of the Royal Institute after the first five years, and in the case of a Licentiate by £1 1s. per annum for every completed year of membership of the Royal Institute.

#### APPLICATIONS FOR MEMBERSHIP. ELECTION, 3 NOVEMBER 1930.

In accordance with the terms of Bye-laws 10 and 11 an election of candidates for membership will take place at the Council Meeting to be held on Monday, 3 November 1930. The names and addresses of the candidates, with the names of their proposers found by the Council to be eligible and qualified in accordance with the Charter and Bye-laws are herewith published for the information of members. Notice of any objection or other communication respecting them must be sent to the Secretary R.I.B.A. not later than Tuesday 28 October 1930:—

##### AS HON. FELLOWS (2).

DEERY: THE RT. HON. THE EARL OF K.G., G.C.B., G.C.V.O., Knowsley, Prescott, Lancashire. Proposed by the Council.  
MACDONALD: THE RT. HON. JAMES RAMSAY, M.P.; 10 Downing Street, S.W.1. Proposed by the Council.

##### AS HON. ASSOCIATES (2).

ORPEN: MAJOR SIR WILLIAM, R.A., R.L., R.O.I., LL.D., "Oriel," South Bolton Gardens, S.W.3. Proposed by the Council.  
PATERBORO: SIR BERNARD, 10 Holland Park Road, W.14. Proposed by the Council.

##### AS HON. CORRESPONDING MEMBER (1).

KOHN: ROBERT D., President, The American Institute of Architects, 56 West 45th Street, New York City, U.S.A. Proposed by the Council.

##### AS FELLOWS (45).

ABCHER: HERBERT HUMBLEY, P.A.S.I. [A. 1912], 8 Tulketh Street, Southport; Clifton Hotel, Promenade, Southport. Proposed by Norman Jones, Albert Schofield and Herbert Langman.  
BALLANTYNE: CEDRIC HEIST [A. 1903], 416 Collins Street, Melbourne, Victoria. Proposed by Rodney H. Alsop and the Council under the provisions of Bye-law 3 (d).  
BANKS: PERCY HAROLD, P.A.S.I. [A. 1920], Surveyors' Department, Messrs. Whitbread and Co., Ltd., Chiswell Street, E.C.; 44 Sussex Square, Brighton. Proposed by Wm. Petch, E. A. Fermaud and P. Ion Elton.  
BERRY: ARTHUR GILBERT [A. 1920], 43A Prince of Wales Road, Norwich; "Lulworth," Branksome Road, Norwich. Proposed by Stanley J. Wearing, Edw. T. Boardman and George J. Skipper.



- BRAND:** WALTER [A. 1896], 33 Bowling Green Street, Leicester; 170 Upper New Walk, Leicester. Proposed by Albert Herbert, Edward T. Allcock and Arthur H. Hind.
- BURGON:** STEPHEN [A. 1908], 48 Bloomsbury Square, W.C.1; 258 Brounley Road, Shortlands, Kent. Proposed by R. G. Hammond, R. A. Hinds and Paul Phipps.
- CHARLWOOD:** GEORGE EDWARD [A. 1920], 4 Mosley Street, Newcastle-on-Tyne; 31 Beverley Terrace, Cullercoats. Proposed by W. Milburn, Junr., Lieut.-Col. A. K. Tasker and R. Burns Dicks.
- COATES:** HAROLD FESWICK [A. 1918], 395 Collins Street, Melbourne, Victoria; 17 Evans Road, Kew, Victoria. Proposed by William A. Henderson, Kingsley A. Henderson and T. B. M. Wightman.
- DICKER:** HAROLD JOHN HUGH [A. 1918], 22 Portman Street, Portman Square, W.1; 33 Templars Avenue, Golders Green, N.W.11. Proposed by M. Wheeler, E. Guy Dawber and Robert Atkinson.
- DYKE:** DAVID NICHOLAS, O.B.E. [A. 1908], H.M. Office of Works, Westminster, S.W.1; Red Gables, Manor Way, South Croydon. Proposed by Sir Richard Allison, A. Bullock and Chas. J. Mole.
- POWELL:** JOSEPH CHARLES [A. 1914], 70 King Street, Sydney, N.S.W.; "Rose Bank," Charlton Kings, Cheltenham, Gloucestershire. Proposed by James S. Gibson, Walter S. A. Gordon and Robert Atkinson.
- FRASER:** BRUCE [A. 1922], Architect to the Shanghai Land Investment Co., Ltd., 25 Jinkee Road, Shanghai, China; 14 Fo Shu Gardens, Tunxin Road, Shanghai, China. Proposed by George L. Wilson, H.M. Spence and Geo. A. Johnson.
- HICKS:** HENRY LEICHTER [A. 1908], 4 Mosley Street, Newcastle-on-Tyne; "Greenside," Manor Road, Longbenton, Northumberland. Proposed by R. Burns Dick, Lieut.-Col. A. K. Tasker and W. Milburn, Junr.
- HUBBARD:** GEORGE EDWARD [A. 1922], Forman Christian College, Lahore, Punjab, India. Proposed by George Hubbard and the Council under the provisions of Bye-law 3 (d).
- LEITH:** GEORGE ESSELMONT GORDON [A. 1907], Transvaal Buildings, Fox Street, Johannesburg; Gresham Buildings, St. Andries Street, Pretoria; "Esselemont," St. Paul's Road, Houghton, Johannesburg. Proposed by Sir Herbert Baker and the Council under the provisions of Bye-law 3 (d).
- LOHNE:** FRANCIS [A. 1913], 1 Montague Place, W.C.1; Proposed by Sir John J. Burnet, Thos. S. Tait and Robert Atkinson.
- LOVE:** ROBERT MACLAUREN [A. 1920], Public Works Department, New Delhi, India. Proposed by S. J. Edwards, George H. Widdows, and Major P. Hubert Keys.
- MILLER:** STANLEY RUSSELL [A. 1914], 36 Great Ormond Street, Queen Square, W.C.1; "Morden," Ducks Hill, Northwood, Middlesex. Proposed by J. M. Sheppard, Walter M. Eggs, and J. N. Randall Vining.
- MITCHELL:** GEORGE ANGUS, P.A.S.I. [A. 1921], 1 West Craibstone Street, Aberdeen; 31 Albert Terrace, Aberdeen. Proposed by Clement George, James B. Nicol and George Watt.
- MORTIMER:** ALAN LEE [A. 1919], Public Works Department Secretariat, Lucknow, India; United Service Club, Lucknow, India. Proposed by John Bradshaw Goss, Arthur J. Hope and James R. Adamson.
- MOSS:** HAROLD EDWARD [A. 1912], 6 John Street, Bedford Row, W.C.1; "Elm Tree Cottage," Victoria Road, Wimbledon Park, S.W.19. Proposed by W. E. Vernon Crompton, Henry V. Ashley and William G. Newton.
- ROBINSON:** JOHN CHARLES [A. 1912], Town Hall Buildings, Blackpool; 28 Beaufort Avenue, Blackpool. Proposed by Wilfred Traversa, Sir Banister Fletcher and H. Duncan Hendry.
- SAYNER:** JOHN HAROLD [A. 1908], The Folly, Little Kingshill, Great Missenden, Bucks. Proposed by L. K. Hall, C. Cowles-Voysey and Ernest G. Thackston.
- SCOTT:** ALEXANDER THOMSON [A. 1928], 55 Marham Street, Westminster, S.W.1; 36 Sheldon Avenue, Highgate, N.6. Proposed by Sir Herbert Baker, F. W. Troup and Thos. S. Tait.
- SMITH:** WILLIAM JAMES, M.C., F.S.A. [Scott], [A. 1920], 227 Bath Street, Glasgow, C.2; 3 Ferngrove Avenue, Kelvin-side, Glasgow, W.2. Proposed by John Watson, T. Harold Hughes and Geo. And. Paterson.
- WADE:** FREDERICK WILLIAM [A. 1907], Public Works Department, Architects' Branch, Kuala Lumpur, Selangor, Federated Malay States. Proposed by C. G. Boucher, W. F. Hedges and E. Vincent Harris.
- WEBSTER:** FRANK COUTTS, O.B.E., F.S.I. [A. 1910], 114 Grosvenor Road, Muswell Hill, N.10; Caxton House (West), Tophill Street, S.W.1. Proposed by John Kirkland, Fredk. R. Hiorn and J. A. Gotch.
- WILLIAMSON:** JOHN WALLACE [A. 1920], Municipal Architect, British Municipal Council, Tientsin; T'ai-ti House, Tientsin, N. China. Proposed by W. Gordon Parkin, H. McClure Anderson and Edwin Cook.

And the following Licentiates who have passed the qualifying Examination:—

**ALLISON:** WILSON BURDETT, Town Hall, Wallasey, Cheshire; 6 The Laurel, Wallasey, Cheshire. Proposed by Richard Holt, Stewart McLaughlan and T. Taliesin Rees.

**EVANS:** WILLIAM, Western Chambers, Romford, Essex; The Old Cottage, Corbets' Tey, near Upminster. Proposed by Brook Kitchen, John Stuart and W. Everard Healey.

**KERR:** HENRY VICTOR, 22 Old Buildings, Lincoln's Inn, W.C.2; Parsons Cottage, Chipstead, Surrey. Proposed by Henry N. Kerr, William Stewart and Digby L. Solomon.

**KISLINGBURY:** ARTHUR VERNON, F.S.I., 30 Bedford Square, W.C.1; Lee Cottage, Cookham, Berks. Proposed by Sir Henry Tanner, H. A. Gold and A. Saxon Snell.

**MOUNTAIN:** WILLIAM JOHN, St. Peter's Chambers, Bournemouth; 4 Bethia Road, Bournemouth. Proposed by A. Edward Shervy, J. Arthur Smith and A. Leonard Roberts.

**PERRIN:** CAPTAIN FRANK ARNOLD, 183 Northdown Road, Cliftonville, Margate; "Copsholine," Arlington Gardens, Cliftonville, Margate, Kent. Proposed by A. Foster, H. V. Lanchester and John L. Seaton Dahl.

**PRINCE:** WILLIAM JOHN, 1 West Street, Museum Square, Leicester; "Graymilla," Syston, nr. Leicester. Proposed by H. L. Goddard, E. J. Williams and Arthur H. Hind.

**SMITH:** CHARLES BOUTON, Buildings Branch Secretary's Office, G.P.O., E.C.1; 43 Warwick Road, Ealing, W.3. Proposed by Briant Poulter, W. Ravenscroft and H. F. Muttell.

**TANSLEY:** HARRY, 84 Lower Road, S.E.16; Down Hall Road, Rayleigh, Essex. Proposed by William Allison, Alfred Cox and Albert J. Thomas.

**THOMAS:** ERNEST JAMES, F.S.I., 30 Landport Terrace, Portsmouth; 50 Grenada Road, Southsea. Proposed by J. W. Wainman, J. Arthur Smith and A. Leonard Roberts.

**TREW:** HAROLD FLETCHER, Burleigh House, Nettleton Road, Gloucesters. Proposed by Thos. Falconer, H. V. Lanchester and Thomas Overbury.

**WYNNE-THOMAS:** CAPTAIN DANIEL, 25 Wood Street, Bolton, Lancs.; Bodnant, Looctock Park, Bolton, Lancs. Proposed by R. Hermon Crook, E. C. Morgan Willmott and George H. Widdows.

and the following Licentiates who are qualified under Section IV, Clause 4 (ii) of the Supplemental Charter of 1925:—

**AHERSE:** DE LACT, 55 Newhall Street, Birmingham; Northbrook



- Park Hill, Moseley, Birmingham. Proposed by C. E. Bateman, James A. Swan and John Goodman.
- GAMBLE:** JAMES GARDNER, City Hall, Belfast; 153 University Street, Belfast. Proposed by Robert Hanna Gibson and Edwin R. Kennedy and the Council under the provisions of By-law 3(d).
- MAYELL:** ALFRED YOUNG, St. James' House, 73, Holland Park Avenue, W.11. Proposed by Herbert Shepherd, Arthur Keen and George A. Lansdown.
- TIFFIN:** HUGH STAMMERS, H.M. Office of Works, Storey's Gate, S.W.1; 18 Ossian Road, N.4. Proposed by Bruce Dawson, Sir R. J. Allison and John H. Markham.
- WEISBERG:** HUARY, 3 Mission Row, Calcutta; 11 Carnack Street, Calcutta, India. Proposed by E. Stanley Hall, Harold Sullow and Fred Kempster.
- AS ASSOCIATES (101).**
- ANDERSON:** WILLIAM GEORGE DEANE [Passed five years' course at the School of Architecture University of London. Exempted from Final Examination after passing Examination in Professional Practice]. 2 Glendower Place, S. Kensington, S.W.7. Proposed by Professor A. E. Richardson, Sir Herbert Baker and C. Lovett Gill.
- ASHWORTH:** ALBERT THOMPSON [Passed five years' course at the Liverpool School of Architecture, University of Liverpool. Exempted from Final Examination after passing Examination in Professional Practice]. Glenholme, Highcroft Avenue, Bebington, Cheshire. Proposed by Professor C. H. Reilly, Gilbert Fraser and Duncan A. Campbell.
- BAILLIE:** IAN [Passed five years' course at the Glasgow School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice]. Fallside House, Uddingston, Glasgow. Proposed by T. Harold Hughes, John Watson and Wm. B. White.
- BANA:** RASHT BIRJONI [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice]. Bana Building, Khetwadi 11th Street, Girgaum, Bombay, India. Proposed by Howard Robertson, J. Murray Easton and Louis de Sussana.
- BELLARIS:** HAROLD (Final), 48 Milton Road, Heaton Park, Manchester. Proposed by Percy Robinson, G. H. Foggitt and Capmin Victor Bain.
- BENTLEY:** LIONEL (Final) C.O. The Architectural Association, 36 Bedford Square, W.C.1. Proposed by P. E. Culverhouse, Howard Robertson and J. Murray Easton.
- BISHOP:** JOHN WILLIAM [Passed five years' course at the Welsh School of Architecture, Cardiff. Exempted from Final Examination after passing Examination in Professional Practice]. 42 Sandringham Road, Cardiff. Proposed by Percy Thomas, E. C. Morgan Willett, and Henry Budgen.
- BOLTON:** JAMES HUGH [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice]. 10 Lincoln's Inn Fields, W.C.2. Proposed by Arthur T. Bolton, Sir Reginald Blomfield and Sir Giles Gilbert Scott.
- BRODIE:** MARGARET BRASH (Miss) B.Sc. [Passed five years' course at the Glasgow School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice]. 70 Oakfield Avenue, Hillhead, Glasgow. Proposed by T. Harold Hughes, John Watson and Geo. And. Paterson.
- BRUCE:** ROBERT ALEXANDER (Final), 215 North End Road, West Kensington, W.14. Proposed by the Council under the provisions of By-law 3 (d).
- BUTCHER:** PERCY GRAHAM [Passed five years' course at the Welsh School of Architecture, Cardiff. Exempted from Final Examination after passing Examination in Professional Practice]. White Lodge, Runney, Cardiff. Proposed by T. Alwyn Lloyd, Percy Thomas and Harry Leather.
- BUJES:** DAVID RODNEY [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice]. 44 Ramuz Drive, Westcliff-on-Sea. Proposed by Sir Charles A. Nicholson, T. J. Ruxton and Fredk. R. Hions.
- BURRINGTON:** THOMAS (Final), 15 Highfield Avenue, Greenford, Middlesex. Proposed by A. E. Beswick, Charles Nicholes and J. E. Dixon-Spain.
- CARR:** DAVID [Passed five years' course at the School of Architecture, Edinburgh College of Art. Exempted from Final Examination after passing Examination in Professional Practice]. 46 Prince of Wales Road, Battersea, S.W.11. Proposed by Jno. Begg, Charles D. Carus-Wilson and F. C. Mears.
- CARTER:** FRANK RANDOLPH [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice]. "Penrose," Rhodes Avenue, Mowbray, Cape Town, S. Africa. Proposed by Howard Robertson, Lawrence M. Girth and Robert R. Prentice.
- CHAMBERT:** LESLIE ARTHUR [Passed five years' course at the Birmingham School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice]. The Bungalow, Watland Road, Halesowen, Birmingham. Proposed by George Drysdale, Sam. N. Cooke and John R. Surman.
- COCHAN:** BRIAN [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice]. Three, Hatch End, Middlesex. Proposed by Howard Robertson, Harold I. Mettriam, and T. M. Wilson.
- COOK:** ANNA JOYCE (Miss) (Final), 1 South Square, Gray's Inn, W.C.1. Proposed by Henry M. Fletcher, Thos. S. Tait and W. Harding Thompson.
- COOPER:** REGINALD WILLIAM GAZE (Final), 17 Rushcliffe Rise, Sherwood, Nottingham. Proposed by Alfred J. Thraves, Cyril F. W. Haseldine and H. Alderman Dickman.
- COLETT:** WILFRED SHAMMIS (Final), 60 Leonard Street, Hull. Proposed by Henry Budgen, Frederick J. Horik and H. Andrew.
- COULDRICK:** HORACE CHARLES CARRINGTON (Final), 3 Sandringham Avenue, Merthyr Park, S.W. Proposed by Arthur Geo. Porri, Thos. Wallis and R. J. Thomson.
- COUTLER:** HERBERT GEORGE [Passed five years' course at the University of London School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice]. "Aberdeen," Singlewell Road, Gravesend. Proposed by Professor A. E. Richardson, C. Lovett Gill and W. J. Price.
- CREICHSBANK:** GEORGE LEBLE [Passed five years' course at Robert Gordon's Colleges, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice]. The Neuk, Fyvie, Aberdeenshire. Proposed by R. Leslie Rollo, Robt. G. Wilson, Junr., and Geo. M. Hay.
- CRODAN:** SIDNEY EDWARD THOMAS [Passed five years' joint course at the Southend School of Arts and Crafts and the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice]. 5 Etheldred Road, W.12. Proposed by E. Stanley Hall, Fred Kempster and Howard Robertson.
- DAVIS:** ERNEST EDWIN (Final), 33 North End Road, Golden Green, N.W. Proposed by H. V. Lanchester, T. A. Lodge and Robert W. Pitt.
- EWTON:** RUTH MERYON (Miss) [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice]. 22 Montpelier Street, S.W.7. Proposed by Howard Robertson, J. Murray Easton and C. H. James.



- ELLERAY**: FREDERICK REGINALD [Special], 13 Crutwell Road, Northwich, Cheshire. Proposed by L. H. Bucknell, Professor A. E. Richardson and Herbert J. Rowse.
- ELLI**: HAROLD HARPER [Passed course at the Architectural Association. Exempted from Final Examination after passing Examinations in Design and Professional Practice]. 1 Beauchamp Road, East Molesey, Surrey. Proposed by Howard Robertson, Sydney H. Meyers and L. H. Bucknell.
- FAHMER**: HENRY COLLINGWOOD [Final], 34 Temple Fortune Lane, N.W.11. Proposed by Fredk. Chatterton, Sir Frank Baines and Alfred Cox.
- FELL**: IAN BUCHAN, B.Arch. [Sydney] [Passed five years' course at the School of Architecture, University of Sydney. Exempted from Final Examination after passing Examination in Professional Practice]. Northwood, Sydney, Australia. Proposed by Major Hubert C. Corlette, and the Council under the provisions of Bye-law 3(d).
- FOLKES**: JOHN HOMERY [Passed five years' course at the Birmingham School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice]. Hagley Grange, near Stourbridge. Proposed by George Drysdale, John B. Surman and Edwin F. Reynolds.
- FORMES**: HOWARD TYLDESLEY [Passed five years' course at the School of Architecture, University of Sydney. Exempted from Final Examination after passing Examination in Professional Practice]. 152 Forrest Street, Cottesloe, Western Australia. Proposed by Professor Leslie Wilkinson, Alfred S. Hook and the Council under the provisions of Bye-law 3(d).
- FOUS**: GEORGE [Final], 20 Leigh Park Road, Leigh-on-Sea, Essex. Proposed by T. P. Bennett, Thos. E. Scott and Herbert J. Axten.
- FORD**: HUGH HUBBARD [Final], 5 Ivy Terrace, Eastbourne. Proposed by Professor A. E. Richardson, T. O. Foster and Maurice E. Webb.
- FREEMAN**: PHILIP GARFORTH, B.Arch. (Liverpool) [Passed five years' course at the Liverpool School of Architecture, University of Liverpool. Exempted from Final Examination after passing Examination in Professional Practice]. 21 Porchester Square, W.2. Proposed by Professor C. H. Reilly, Professor Lionel B. Budden and the Council under the provisions of Bye-law 3(d).
- GARDNER**: ERIC GODFREY [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice]. 91 Gower Street, W.C.1. Proposed by Howard Robertson, C. H. James and Thos. S. Tait.
- HARGRAVE**: FRANK CLIFT, B.Arch. (Sydney) [Passed five years' course at the School of Architecture, University of Sydney. Exempted from Final Examination after passing Examination in Professional Practice]. c/o Australian Bank of Commerce, 62 Bishopsgate, E.C.2. Proposed by Major Hubert C. Corlette and the Council under the provisions of Bye-law 3(d).
- HARLAND**: PETER JOHN BLUNTILL [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice]. 129 Crawford Street, W.1. Proposed by W. H. Ansell, G. Grey Worrum and J. Murray Easton.
- HARRIS**: KENNETH WILLIAM FURNEAUX [Final], 45 Denning Road, Hampstead, N.W.3. Proposed by A. Dunbar Smith, Sidney K. Greenalade and H. H. Jewell.
- HARRIS**: ROBERT OLIVER [Special Examination], 54 Tudor Avenue, Chelmsford. Proposed by John Stuart, Wykeham Chancellor and Hugo R. Bird.
- HARTLEY**: JAMES STANLEY [Final], 111 Lichfield Grove, Church End, Finchley, N.3. Proposed by Henry V. Ashley, Thos. Wallis and Thos. E. Scott.
- HENDERSON**: PERCY PITHIE [Final], 16 Thirlestane Lane, Edinburgh. Proposed by John Begg, Geo. D. Macquiven and John Wilson.
- HINTON**: ROBERT CHARLES HAMILTON [Final], 16 Lakeside Road, Palmers Green, N.13. Proposed by Thos. E. Scott, Howard Robertson and Thos. S. Tait.
- HURDEN**: STANLEY ALLEN [Final], 23 Rectory Grove, S.W.4. Proposed by H. Austen Hall, F. Sutcliffe and C. Ernest Elcock.
- INNES**: DOUGLAS WILLIAM [Passed five years' course at Robert Gordon's Colleges, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice]. 17 Caledonian Place, Aberdeen. Proposed by R. Leslie Rollo, James B. Nicol and Robt. G. Wilson, jun.
- IRONSDALE**: WILLIAM DALTON [Passed five years' course at Robert Gordon's Colleges, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice]. 30 Gladstone Place, Aberdeen. Proposed by James B. Nicol, J. A. O. Allan and William E. Gould.
- JACOBSON**: HERBERT [Passed five years' course at the Birmingham School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice]. 221 Holyhead Road, Handsworth, Birmingham. Proposed by George Drysdale, William T. Benslyn and John Goodman.
- JEWELL**: ARTHUR EDWARD [Passed five years' course at the Welsh School of Architecture, Cardiff. Exempted from Final Examination after passing Examination in Professional Practice]. 26 Syr David's Avenue, Canton, Cardiff. Proposed by T. Alwyn Lloyd, Percy Thomas and W. Goodchild.
- JOLLEY**: VINCENT ALPHONSUS PETER [Final], 5 Springbank Avenue, Thornton, Blackpool. Proposed by Fred. T. Waddington, Sir Banister Fletcher and Alex. G. Bond.
- KEMP**: WILLIAM CHARLES [Final], 3a Portnall Road, Harrow Road, W.9. Proposed by H. Duncan Hendry, Stanley P. Schooling and Ernest B. Glanfield.
- KING**: LAURENCE EDWARD [Passed five years' course at the School of Architecture, University of London. Exempted from Final Examination after passing Examination in Professional Practice]. The Wayside, Shenfield Common, Brentwood, Essex. Proposed by Professor A. E. Richardson, Howard Robertson and J. Murray Easton.
- KINGSFORD**: GEOFFREY MONTAGUE, M.A. Cantab. [Final], Cavendish Club, Piccadilly, W.1. Proposed by A. Edward Hughes, Howard Robertson and John Kirkland.
- LACOSTE**: GERALD AUGUSTE CHARLES [Final], 19 Upperton Gardens, Eastbourne. Proposed by Peter D. Stotham, John D. Clarke and Oswald P. Milne.
- LAYERS**: RALPH STEPHENSON [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice]. "Glanusk," Buckhurst Hill, Essex. Proposed by Laurence M. Gotch, Walter Henry Woodroffe and E. Stanley Hall.
- LEX**: RICHARD EDMUND [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice]. 7 Netheravon Road, Chiswick, W. Proposed by Howard Robertson, J. Murray Easton and Thos. S. Tait.
- LEWIS**: GILBERT NORMAN, A.A. Diploma [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice]. 41 Orchard Road, Bromley, Kent. Proposed by Howard Robertson, J. Murray Easton and Thos. S. Tait.
- LLEWELLYN**: GLYN PRICE [Passed five years' course at the Welsh School of Architecture, Cardiff. Exempted from Final Examination after passing Examination in Professional Practice].



- essional Practice], 59 College Road, Norwich. Proposed by T. Alwyn Lloyd, Percy Thomas and Harry Teather.
- LLOYD: WILLIAM THOMAS [Special Examination], 1192 Neath Road, Landore, Swansea. Proposed by Henry C. Portsmouth, J. Herbert Jones and Percy Thomas.
- LUKE: HIM SAU, A.A. Diploma [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], "Tree-Lan-Tong," 4 Han Fung Lane, Hong Kong. Proposed by Howard Robertson, J. Murray Easton and E. H. Evans.
- LUMLEY: DAVID FRANCIS [Final], "Ivernus," 122 Clodien Avenue, The Heath, Cardiff. Proposed by Herbert R. Cowley, Percy Thomas and Captain D. H. Burles.
- MACDONALD: ALFRED IAN DUNCAN [Passed five years' course at the Glasgow School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], 15 Grosvenor Terrace, Glasgow, W.2. Proposed by T. Harold Hughes, David Salmon and John Watson.
- MARRETT: ERIC MOORE [Final], 5 Wentworth Road, Golders Green, N.W.11. Proposed by Thos. E. Scott, Frank T. Verity and T. P. Bennett.
- MARSHALL: HADLEY BERNARD [Final], 18 Adamson Road, Hampstead, N.W.3. Proposed by F. W. C. Gregory, Robert Atkinson and Stanley Hamp.
- MARTINSEN: ROX DISTRIN [Passed five years' course at the University of the Witwatersrand, Johannesburg. Exempted from Final Examination after passing Examination in Professional Practice], Wychwood Road, Forest Town, Johannesburg, South Africa. Proposed by Allen Wilson, S. C. Dowsett, D. M. Sinclair and D. M. Burton.
- MAYBURY: MATTHEW [Final], 64 Albion Road, Dalton, E.8. Proposed by Horace Field, M. N. Castelle and Digby L. Solomon.
- MELLOR: FRANK [Final], Bankfield Road, Armitage Bridge, Huddersfield. Proposed by Norman Culley, B. R. Gribbion and G. H. Foggitt.
- NIGHTINGALE: DOUGLAS ERIC [Passed five years' course at the School of Architecture, University of London. Exempted from Final Examination after passing Examination in Professional Practice], 283 Trinity Road, Wandsworth Common, S.W.18. Proposed by Matthew J. Dawson, Bernard J. Belsher and George Coles.
- NOAD: RICHARD MEYVEN [Passed five years' course at Glasgow School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice]. The Den, Perth, Scotland. Proposed by John Keppie, John Watson and T. Harold Hughes.
- PARR: JOHN WILLIAM [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], 107 Jermyn Street, S.W.1. Proposed by Howard Robertson, John H. Markham and J. Murray Easton.
- PEEL: ARTHUR [Special Examination], 4 Kenmuir Avenue, Kettering Road, Northampton. Proposed by Percy Thomas, Walter Rosser and Chas. F. Ward.
- PERVEY: WALTER CLARENCE [Special], 7 George A. Green Road, Wakefield, Yorks. Proposed by Norman Culley, G. H. Foggitt and B. R. Gribbion.
- PLATNE: EDWARD [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], Baintrofts, Woodford Green, Essex. Proposed by Howard Robertson, E. Stanley Hall and George O. Secret.
- POLESON: FRANKLIS MURRAY [Final], 29 St. George's Road, S.W.1. Proposed by J. J. Jossa, Geo. W. Grey and Septimus Warwick.
- PORTER: HERBERT GOULD [Passed five years' joint course at the School of Architecture, University of Witwatersrand, and the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], 5 Torrington Square, W.C.1. Proposed by Howard Robertson, William A. Pite and Robert W. Pite.
- POWELL: HAROLD HAMILTON [Passed five years' course at the Liverpool School of Architecture, University of Liverpool. Exempted from Final Examination after passing Examination in Professional Practice], 51 Vaughan Road, Wallasey, Cheshire. Proposed by Professor C. H. Reilly, Professor Lionel B. Budden and the Council under the provisions of Bye-Law 3 (d).
- REA: ARTHUR JOHN [Final], High Street, Solihull, Warwickshire. Proposed by Sam N. Cooke, Herbert Buckland, and L. L. Dussault.
- REITH: WILLIAM JAMES [Dip. Arch. Abdn] [Passed five years' course at Robert Gordon's Colleges, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice], 6 Rosebery Street, Aberdeen. Proposed by George Watt, Geo. M. Hay and Clement George.
- RIDDELL: JAMES RATTRAY [Passed five years' course at Robert Gordon's Colleges, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice], 4 Watson Street, Aberdeen. Proposed by R. Leslie Rollo, J. A. O. Allan and Clement George.
- ROSE: CHARLES ALEXANDER [Passed five years' course at Robert Gordon's Colleges, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice], Smithton, Culloden, near Inverness. Proposed by R. Leslie Rollo, Robt. G. Wilson, jun., and James B. Nicol.
- ROSE: JOHN CRUIKSHANK [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], 103 Rosebery Road, Maxwell Hill, N.10. Proposed by E. Stanley Hall, J. Murray Easton and Howard Robertson.
- ROTH: STANLEY HENRY JAMES [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], c/o Messrs. Spratt and Rolph, 1162 Bay Street, Toronto, Canada. Proposed by Howard Robertson, Henry Spratt and Ernest R. Rolph.
- ROWE: GEORGE FREDERICK, M.C. [Special Examination], 36 Temple Fortune Lane, N.W.11. Proposed by C. Geoffrey Blomfield, J. Murray Easton and Howard Robertson.
- SCHULTZ: ISRAEL SAMUEL [Final], 40 Beresford Road, Chingford, Essex. Proposed by T. P. Bennett, Arthur J. Davis and Thos. S. Tait.
- SHAW: MARDON MITCHELL (Miss), B.Sc. (Arch.), Glasgow [Passed five years' course at Glasgow School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], "Lynwood," St. Meddams Street, Troon, Ayrshire. Proposed by T. Harold Hughes, John Watson and James Lochhead.
- SMITH: ALFRED [Final], 11 Victor Street, Heywood, Lancs. Proposed by J. Theo. Halliday, John Swarbrick and Isaac Taylor.
- SMITH: JOHN JAMES [Final], 43 Balmoral Terrace, Atherton Road, Hindley, Lancs. Proposed by J. Theo. Halliday, John Swarbrick and Isaac Taylor.
- STEPHEN: NORMAN [Passed five years' course at Robert Gordon's Colleges, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice], 42 Union Grove, Aberdeen. Proposed by R. Leslie Rollo, James B. Nicol and Robt. G. Wilson, jun.
- TANTON: HUMBERT JOHN [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], Botha House, 8 Granville Place, W.1. Proposed by Howard Robertson, W. Curtis Green and Maxwell Ayton.
- THOMPSON: ERIC [Final], 38 Beekingham Road, Leicester. Proposed by George Nott, William Kay and Arthur H. Hind.



**TOLSON**: JACK RANSOM, Dip. Arch. [Leeds] [Final], 66 Shaftesbury Avenue, Roundhay, Leeds. Proposed by Colonel Albert E. Kirk, James Parish and Captain Victor Bain.

**TOMKINS**: CYRIL JAMES [Special], 86 Park Grove, Derby. Proposed by George M. Eaton, Herbert Norton and George H. Widdows.

**TWIGG**: WILLIAM LESLIE [Final], 10 Strathyre Avenue, Norbury, S.W.16. Proposed by A. Alban H. Scott, Sydney Tatchell and T. J. Rushon.

**VAUGHAN**: OLWEN (Miss) [Final], 122 Upper Montagu Street, W.1. Proposed by H. Courtenay Constantine, Percy C. Boddy and Austin Vernon.

**VEITCH**: KATHLEEN ANNE (Miss) [Passed five years' course at the Architectural Association. Exempted from Final Examination after passing Examination in Professional Practice], 79 Wimpole Street, W.1. Proposed by Gilbert H. Jenkins, J. Alan Slater and A. H. Moberly.

**WALKER**: WILLIAM CAIR [Passed five years' course at Robert Gordon's College, Aberdeen. Exempted from Final Examination after passing Examination in Professional Practice], "Elsinore," 261 Victoria Road, Aberdeen. Proposed by R. Leslie Rollo, Robt. G. Wilson, jun., and Geo. M. Hay.

**WATSON**: CAPTAIN LESSLIE KENYON, R.A. (T.) [Final], 6 Gray's Inn Place, W.C.1. Proposed by Sir Giles Gilbert Scott, Arthur Wm. Kenyon and Gilbert Scott.

**WEBB**: FRANCIS HOWARD HIPPEISLEY [Special Examination], 202 Redland Road, Bristol. Proposed by W. S. Skinner, Sir George H. Oatley and G. C. Lawrence.

**WILKINSON**: HAROLD HERBERT [Passed five years' course at the Liverpool School of Architecture, University of Liverpool. Exempted from Final Examination after passing Examination in Professional Practice], 46 Grove Street, Bootle, Liverpool. Proposed by Professor C. H. Reilly, Professor Lionel B. Budden and Philip Barker.

**WILLIAMS**: STIGOL [Final], 92 Mountview Road, Stroud Green, N.4. Proposed by Horace Farquharson, John Coleridge and the Council under the provisions of Bye-law 3(d).

**WINGATE**: WILFRID HOWARD [Special Examination], The Lawns, Cheddard Road, Taunton. Proposed by H. S. W. Stone, Eric C. Francis and F. W. Roberts.

**WRIGHT**: LAWRENCE, B.Arch. (Liverpool) [Passed five years' course at the Liverpool School of Architecture, University of Liverpool. Exempted from Final Examination after passing Examination in Professional Practice], 24 Carlton Vale, N.W.5. Proposed by Professor C. H. Reilly, Frank T. Varry and Arthur J. Davis.

**YORKE**: FRANCIS REGINALD STEVENS [Passed five years' course at the Birmingham School of Architecture. Exempted from Final Examination after passing Examination in Professional Practice], 12 Church Street, Chelsea, S.W.3. Proposed by George Drysdale, Francis W. B. Yorke and O. Campbell-Jones.

### ELECTION OF LICENTIATES.

In accordance with the terms of Bye-laws 10 and 11 an Election of Licentiates will take place at the Council Meeting to be held on Monday, 3 November 1930. The names and addresses of the candidates, with the names of their proposers, found by the Council to be eligible and qualified in accordance with the Charter and Bye-laws, are herewith published for the information of members. Notice of any objection or other communication respecting them must be sent to the Secretary, R.I.B.A. not later than Tuesday, 28 October 1930.

**ARNOLD**: WILLIAM JOHN, 6 Old Steine, Brighton; 103, Hartington Road, Brighton. Proposed by A. J. McLean and the President and Honorary Secretary of the South-Eastern Society under the provisions of Bye-law 3(a).

**BAILEY**: GERVASE, King's Buildings, Smith Square, Westminster, S.W.1.; 8 Addison Bridge Place, Kensington, W.14. Proposed by A. H. Kersey, L. Rome Guthrie and W. B. Simpson.

**BAKER**: ALBERT HENRY ISAAC, c/o Messrs. Young and Mackenzie, 143 Scottish Provident Buildings, Belfast; 45 Bloomfield Road, Belfast. Proposed by James R. Young, Edwin R. Kennedy and T. W. Henry.

**BALL**: JAMES HARRISON, The London County Council, County Hall, S.E.1.; 50 Glenloch Road, Belsize Park, N.W.3. Proposed by R. Leslie Rollo, Robert G. Wilson, jun., and Geo. M. Hay.

**BAKER**: THOMAS JAMES, 6 Edith Terrace, Chelsea, S.W.10. Proposed by Arthur Wm. Kenyon, Stanley G. Livock and Louis de Soissons.

**BALL**: RICHARD COYSGARNE, M.C., Broadway Chambers, Crowborough; The Country House Hotel, Crowborough, Sussex. Proposed by C. H. Strange, John W. Little and W. H. Robinson.

**BARMAN**: CHRISTIAN, 9 Queen Anne's Gate, Westminster, S.W.1.; 53 Woodland Gardens, Muswell Hill, N.10. Proposed by Professor A. E. Richardson, L. Sylvester Sullivan and Major Harry Barnes.

**BERNARD**: OLIVER PERCY, O.B.E., M.C., Cadby Hall, W.14; 7 Shepherd's Hill, N.6. Proposed by George Grey Worsum, Maxwell Ayrton and Robert Atkinson.

**BOAG**: ROBERT STEVEN, Kingsley Green, Haslemere; "Lennoxvale," Kingsley Green, Haslemere. Proposed by Edwin R. Kennedy and the President and Honorary Secretary of the South-Eastern Society of Architects under the provisions of Bye-law 3(a).

**BOWEN**: ROBERT STEUART, 3 Portsmouth Street, Lincoln's Inn, W.C.2.; 24 Dulwich Village, S.E.21. Proposed by W. Courtenay Le Maitre, W. R. Davidge, and applying for nomination by the Council under the provisions of Bye-law 3(d).

**BOWMAN**: DOUGLAS, 18 Park Row, Leeds; "Birkdale Lodge," 48 The Drive, Roundhay, Leeds. Proposed by B. R. Gribbin, Norman Culley and G. H. Foggott.

**BRIGHT**: THOMAS LESLIE, c/o E. Stanley Hall, Esq., 34 Bedford Square, W.C.1.; "Hillcote," 102 College Road, S.E.21. Proposed by E. Stanley Hall, J. Murray Easton, and Fred Kempster.

**BRODIE**: ALEXANDER SHEPHERD, 13 Young Street, Edinburgh; 4 Marchmont Crescent, Edinburgh. Proposed by E. A. Jamieson, James A. Arnott, and T. F. MacLennan.

**BURROWS**: REGINALD WILLIAM, 17 Victoria Street, Westminster, S.W.1.; 72 Upper Tulse Hill, Brixton, S.W.2. Proposed by C. H. B. Quennell, A. Heron-Ryan Tenison, and Max Clarke.

**CASTLEY**: JESSE, c/o R. S. Ayling, Esq., 53 Victoria Street, S.W.1.; 23 Sheshbury Road, East Ham, E.6. Proposed by R. Stephen Ayling, Albert Herbert, and Frederick Chatterton.

**CHESFIELD**: DOUGLAS FREDERICK, F.S.I., 109 High Street, Broadstairs; "St. Martins," Walsley Road, Broadstairs. Proposed by Ernest E. Moody and the President and Honorary Secretary of the South-Eastern Society of Architects under the provisions of Bye-law 3(a).

**CROSS**: KENNETH MERVYN BARKERVILLE, M.A. (Cantab.), 45 and 46 New Bond Street, W.1. Proposed by Lt.-Col. J. E. Dixon-Spain, Charles Holden and P. W. Hubbard.

**CHUCKERHANK**: JAMES CRANE, Dept. of Agriculture for Scotland, York Buildings, Queen Street, Edinburgh; 94 Craigies Drive, Edinburgh. Proposed by James B. Nicol, William E. Gauld, and A. Marshall Mackenzie.

**DANIELS**: JOHN HENRY, 28 High Street, Newport, Mon.; 17 Hawthorn Avenue, Newport, Mon. Proposed by Chas. F. Ward, Lieut.-Col. E. H. Fawcner, and John F. Groves.



- DAVIES:** GEORGE, 1 Addiscombe Road, Croydon, Surrey; Spring Grove Vicarage, Osterley, Middlesex. Proposed by Hugh Macintosh, Briant Poulter, and J. Edward Stoll.
- DICKINS:** ERIC FRANCIS, 6 Watwick Court, Gray's Inn, W.C.1; 7 Blenheim Road, St. John's Wood, N.W.8. Proposed by Ernest H. Abbott, Henry N. Kerr, and F. G. M. Chancellor.
- FISHER:** EWART WILLIAM, 10 Old Burlington Street, W.1; "Southover," Sheridan Road, Merton Park, S.W.19. Proposed by Herbert A. Welch, H. Ladbetter, and Ernest G. W. Souther.
- FRENCH:** JOHN WILLIAM, Town Hall, Eastbourne; "Lindisfarne," Brodrick Road, Hampden Park, Eastbourne. Proposed by Arthur R. G. Fenning, John D. Clarke, Colin H. Murray, and the Honorary Secretary of the South-Eastern Society of Architects.
- GELDER:** HAROLD EDWARD, 120 Alfred Gelder Street, Hull; Briar Croft, Ferriby, E. Yorks. Proposed by L. Kitchen, Joseph H. Hirst, and J. Malcolm Dossor.
- GHEAVES:** JOHN, 17 Bolton Street, Piccadilly, W.1; 105 Corlingham Road, N.W.11. Proposed by Sir Herbert Baker, F. W. Troup, and Henry V. Ashley.
- GRIFF:** THOMAS JENKINS, 9 St. Mildred's Court, Poultry, E.C.2; 36 Pinborough Road, S. Kensington, S.W.10. Proposed by Laurence M. Gotch, J. A. Gotch, and Thos. E. Scott.
- HALL:** RICHARD LESLIE, P.A.S.I., c/o Messrs. Carby Hall and Son, Prudential Buildings, Park Row, Leeds; "The Nook," Prinley Park Avenue, Moortown, Leeds. Proposed by W. Carby Hall, Percy Robinson, and Colonel Albert E. Kirk.
- HARVEY:** MARSHALL, 36 Station Street, Sittingbourne. Proposed by Charles W. W. Thompson and The President and Honorary Secretary of the South-Eastern Society of Architects under the provisions of Bye-law 3(d).
- HAUGHTON:** HAROLD SAMUEL, 34-35 Bedford Street, Plymouth; Grey Cottage, Plympton, Devon. Proposed by J. Leighton Fouracre, B. Priestley Shires, and A. Southcombe Parker.
- HAWORTH:** WALTER RAYMOND, 10 Hyde Park, Halifax. Proposed by John B. Goss, Jonathan Simpson, and Joseph Frederick Walsh.
- HEATHCOTE:** ARTHUR EDWARD, "Grays," Crawley, Sussex. Proposed by Chas. Henry Heathcote, Ernest J. Heathcote, and applying for nomination by the Council under the provisions of Bye-law 3(d).
- HOBBS:** ALBERT, Borough Surveyor's Department, Dewsbury; 22 Ashton Road, Harehills, Leeds. Proposed by W. Carby Hall, Norman Culley, and G. H. Foggitt.
- JACK:** DONALD DENOUN, Miners' Welfare Committee, Dean Stanley Street, S.W.1; 12 West Avenue, Wallington, Surrey. Proposed by Chas. J. Mole, Cedric Ripley and applying for nomination by the Council under the provisions of Bye-law 3(d).
- JACKSON:** WILLIAM HARA, c/o F. Trimmer, Esq., Westminster Chambers, Harrogate; Westminster Drive, Painsl, Harrogate. Proposed by H. S. Charley, T. Edward Marshall, and Geo. Bland.
- JACOB:** JOHN HENRY, 12 Stratford Place, W.1; 550 Greencourt Place, Ashley Gardens, S.W.1. Proposed by H. P. G. Maule, Robert Atkinson, and Oswald P. Milne.
- JONES:** CYRIL LLOYD, c/o A. S. Parker, Esq., 1 St. Andrew's Street, Plymouth; "Walton," Lucas Lane, Plympton. Proposed by A. S. Parker, B. Priestley Shires, and A. C. A. Norman.
- JONES:** RICHARD WILLIAM HERBERT, Messrs. F. Taperell & House, 5 Stratford Place, W.1; 3 Hightfield Avenue, Golders Green, N.W.11. Proposed by Professor A. E. Richardson, George A. Mitchell and Alex. G. Bond.
- KAY:** HENRY GORDON, c/o Bertie Crewe, Esq., 73 Shaftesbury Avenue, W.1; 1 Green Lane, Hendon, N.W.4. Proposed by Cecil Maasey and applying for nomination by the Council under the provisions of Bye-law 3(d).
- KELBALL:** JOHN SCOTT, Gralam Chambers, Chapel Road, Worthing; White House, Woodmancote, nr. Henfield, Sussex. Proposed by Sir Charles A. Nicholson, T. J. Rushton and Captain D. H. Burles.
- KENNARD:** CECIL, 143 Bow Road, E.3; Gara, Downside Road, Sutton, Surrey. Proposed by F. E. Mennie, H. D. Searles-Wood, and Percy B. Dannatt.
- KENT:** ARTHUR GEORGE PERCY, Trumans Brewery, Spitalfields, E.1; 14 Bruxholm Road, S.E.27. Proposed by Briant Poulter, H. Reginald Poulter, and Hugh Macintosh.
- LOVELL:** WILLIAM GOULBURN, St. Moditz, Upper Avenue, Eastbourne; 3 Devonshire Place, Eastbourne. Proposed by H. V. Lancaster, John L. Denman, and John D. Clarke.
- MANT:** FREDERICK GEORGE, 2 New Square, Lincoln's Inn, W.C.2; 37 Dismell Road, Ealing, W.5. Proposed by Sir Charles A. Nicholson, T. J. Rushton, and A. Alban H. Scott.
- MARSH:** DUDLEY GRAHAM, Jessel Chambers, 88-90, Chancery Lane, W.C.2; "Delville," Oxenden Square, Herne Bay, Kent. Proposed by E. J. W. Hider, Ernest G. Cole, and Douglas Wood.
- MILLER:** LOCKHART FRASER, 54 Duff Street, Edinburgh; 52 Comely Bank Avenue, Edinburgh. Proposed by T. F. Maclean and The President and Secretary of the Royal Incorporation of Architects in Scotland under the provisions of Bye-law 3(a).
- NUTTALL:** ORRILL HYDE HERBERT, Architects' Department C.W.S., Ltd., 99 Lenian Street, E.1; 46 Strathbrook Road, Stratham Common, S.W.16. Proposed by T. E. Eccles, D. G. McIntosh, and L. G. Ekins.
- PACKHAM:** ARTHUR BENJAMIN, 1 Plumix Place, Brighton; 12A North Place, Brighton. Proposed by John L. Denman and The President and Honorary Secretary of the South-Eastern Society of Architects under the provisions of Bye-law 3(a).
- PARK:** LIONEL MARSDEN, 55 Broadway, Westminster, S.W.1; 2 Bowood Road, Clapham Common, S.W.11. Proposed by F. S. Haynes, B. H. Parkin Haigh, and Allan D. Reid.
- PRICE:** WILLIAM HARRY LYNE, F.S.I., Trading Estate, Slough; "Carlton," Bath Road, Slough. Proposed by Herbert Spink and The President and Honorary Secretary of the Berks, Bucks and Oxon Architectural Association under the provisions of Bye-law 3(a).
- PRION-HALE:** LESLIE, 3 John Street, Bedford Row, W.C.1; "Elmington," Sutherland Grove, S.W.20. Proposed by Edwin J. Sadgrove, Leonard A. Culliford, and A. Foster.
- SCOLLS:** HENRY JOSEPH, Electric Chambers, Union Street, Torquay; Shirburn, St. Marychurch Road, Torquay, Devon. Proposed by H. V. Lancaster, Geoffry Lucas, and Norman G. Bridgman.
- SCHAEF:** HENRY ARCHIBUTER, 16 St. Helen's Place, Bishopsgate, E.C.3; 19 Fox Lane, Palmer's Green, N.15. Proposed by Gilbert H. Lovegrove, R. H. J. Mayhew, and Osborn C. Hills.
- SEABLER:** PERCY GEORGE, Medway Brewery, Maidstone; "Highfield," Loose Road, Maidstone. Proposed by Wm. H. Poole, W. H. Robinson, and The President and Honorary Secretary of the South-Eastern Society of Architects under the provisions of Bye-law 3(a).
- SIMONS:** GEORGE PERCY, Estate Office, Stanmore; "Windy Ridge," Old Church Lane, Stanmore, Middlesex. Proposed by George E. Clare, Clement Stretton, and Arthur J. Wood.



**SLATER:** REGINALD JOHN LANHAM, 199 Planter Grove, East Ham, E.6. "Ashdene," 12 Sandford Road, East Ham, E.6. Applying for nomination by the Council under the provisions of Bye-law 3(d).

**SMART:** LAWRENCE HARRISON, P.O. Box 374, Hamilton, Bermuda; The Old House, Point Stares, Pembroke, Bermuda. Proposed by H. O. Tarbolton and The President and Secretary of the Royal Incorporation of Architects in Scotland under the provisions of Bye-law 3 (a).

**SMITH:** THOMAS HAROLD, City Architect's Dept., Guildhall, Hull; 14 Loutleys Lane, Derrington Bank, Hull. Proposed by F. E. Pearce Edwards, Frederick J. Hardt, and H. Andrew.

**SPACKMAN:** CYRIL SAUNDERS, R.B.A., F.S.A.Scot., 29 Blake Road, East Croydon, Surrey. Proposed by W. E. Riley, Brian Poulter, and Hugh Macintosh.

**SETTEL:** ARNOLD, 2 Victoria Avenue, Harrogate; "Linton Close," Wetherby, Yorks. Proposed by Archibald Neill and The President and Honorary Secretary of the West Yorkshire Society of Architects under the provisions of Bye-law 3(a).

**TAYLOR:** CHARLES DONALD, 25 Ropergate, Pontefract; "Chertont," Mayors Walk, Pontefract, Yorks. Proposed by Colonel Albert E. Kirk, G. H. Foggott, and Captain Victor Bain.

**TAYLOR:** GEORGE LANDLEY, F.S.I., Wilton Park Estate Office, Beaconsfield; Ledborough, Beaconsfield, Bucks. Proposed by J. T. Saunders and The President and Honorary Secretary of the Bucks, Bucks and Oxon Architectural Association under the provisions of Bye-law 3(a).

**THOMAS:** ALBERT EDWIN, 25 Montholme Road, Wandsworth Common, S.W. Applying for nomination by the Council under the provisions of Bye-law 3(d).

**THOMAS:** FREDERICK GILBERT STANLEY, c/o Sir Giles Gilbert Scott, R.A., 7 Grays Inn Square, W.C.1. 18 Castleford Avenue, Cambridge Green, New Eatham, S.E.9. Proposed by Sir Giles Gilbert Scott, Gilbert Scott, and W. E. Watton.

**TOTT:** SIDNEY CHARLES, 91 Brick Lane, E.1. 43 Broadfields Avenue, Edgware, Middlesex. Proposed by S. H. Caulfield, E. J. W. Hider, and William G. Ingram.

**TILLEY:** ERNEST FRANK, 123 Regent Street, W.1; Haslemere, Argyll Road, North Harrow, Middlesex. Proposed by William T. Burslyn, T. Jay Evans, and W. H. Watkins.

**UNDERDOWN:** ALWIN, Lloyds Bank Chambers, Seaford; "Winton," Victoria Drive, Eastbourne. Proposed by W. T. B. Foster, John L. Denman, and Colonel Wilfred J. Hardcastle.

**WATKINS:** ARCHIBALD HORACE, 3 St. James's Street, S.W.1; 2 Crescent Gardens, Wimbledon Park, S.W.19. Proposed by Ernest G. W. Souther, R. Mounford Pigott, and A. S. R. Ley.

**WAYSON:** CHARLES HERBERT, F.S.I., Lloyds Bank Chambers, Beaconsfield; Cucklemans Corner, Beaconsfield, Bucks. Proposed by Julian G. Burgess, W. F. C. Holden, and W. H. Raffles.

**WHEEN:** FRANK, "Allington Mead," Dover House Road, Roehampton, S.W.15; 2 Sloane Gardens, S.W. Proposed by H. P. Burke Downing, Gilbert Scott, and J. E. Mundell.

**WHITE:** ARTHUR WELLINGTON, 98 Ossulton Way, N.2. Proposed by Allen Foxley, Sydney D. Kison, and Maurice E. Webb.

**WHITE:** RICHARD WAKEHAM, 10 Great George Street, Westminster, S.W.1; 10 Hadley Gardens, W.4. Proposed by W. T. Curtis, C. Stanley Peach, and T. Frank Hawkes.

## Competitions

### BURTON-ON-TRENT: PROPOSED COUNCIL SCHOOL.

The Burton-on-Trent Local Education Authority invite architects to submit, in open competition, designs for a new Council School for approximately 800 children, to be erected on a site in Clarence Street.

Assessor: Mr. H. T. Buckland [F.].

Premiums: £150, £100 and £50.

Last day for receiving designs: 30 November 1930.

Conditions of the competition may be obtained on application to Mr. L. E. Burgess, Secretary and Director of Education, Education Offices, Guild Street, Burton-on-Trent. Deposit £1.

### GUILDFORD: PROPOSED CATHEDRAL.

The Guildford Cathedral Committee invite architects who have been engaged in the building of cathedrals or churches to submit drawings and illustrations of their works; or a design for a cathedral. Not more than three sets of drawings may be sent, all to be contained in one large portfolio. Architects who have not been engaged in the actual execution of such works, but have studied and designed ecclesiastical buildings, may submit similar portfolios of drawings or designs.

The Committee, with the assistance of Mr. Walter Tapper, A.R.A., F.S.A. [F.], will select a limited number of architects for the Final Competition, who will each receive Five Hundred guineas, whether the design is accepted or not, but the Committee will be free to accept or reject any or all of such designs.

Portfolios must be sent in on or before 30 November 1930, addressed to The Venerable the Archdeacon of Surrey, The Diocesan Office, Lloyds Bank Chambers, Guildford.

### LIVERPOOL: DEVELOPMENT OF SITE.

The General Building Syndicate, Ltd., invite architects to submit, in open competition, schemes for the development of a site at Liverpool fronting St. John's Lane, Queen Square and Roe Street.

Assessor: Mr. Duman A. Campbell [F.].

Premiums: £250, £100 and £50.

Last day for receiving designs: 30 October 1930.

Conditions of the competition may be obtained on application to The Secretary, General Building Syndicate, Ltd., 36, St. Martin's Lane, London, W.C.2. Deposit £2 2s.

### NORWICH: PROPOSED NEW FIRE STATION.

The Norwich Corporation invite architects practising in Norwich or the County of Norfolk to submit, in competition, designs for a new Fire Station, to be erected on a site in Bethel Street.

Assessor: Mr. Robert Atkinson [F.].

Premiums: £100, £75, £50 and £25.

Last day for receiving designs: 1 February 1931.

Conditions of the competition may be obtained on application to Mr. Noel B. Rudd, Town Clerk, Guildhall, Norwich. Deposit £1 1s.



## Members' Column

### STANLEY HALL AND EASTON AND ROBERTSON.

The firms of Edwin T. and E. Stanley Hall, of 34 Bedford Square, and Easton and Robertson, of 36 Bedford Square, have entered into partnership under the name of Stanley Hall and Easton and Robertson, and will practice at 34 Bedford Square, London, W.C.1. Museum Street (Jilliers).

### ANDREWS AND DUKE.

Mr. W. F. ANDREWS, L.R.I.B.A., P.A.S.I., of Ocean Chambers, Brighton, and 14 Hanover Square, London, has taken into partnership Mr. R. J. DUKE, late of Underdown and Duke, of Sanford. Mr. Duke is taking over the London practice and will be pleased to receive the latest catalogues at that address. The style of the firm will be Andrews and Duke.

### CHANGE OF ADDRESS.

MR. F. E. MERRILL (P.) has changed his address from 311 Cambridge Road, Bethnal Green, E.2, to 1 Montfort House, Victoria Park Square, E.2.

### APPOINTMENT VACANT.

EXPERIENCED ASSISTANT ARCHITECT capable of taking charge of Drawing Office required by a firm of European Architects with an extensive practice in India. A bachelor, age not more than 35, physically fit, good draughtsman, and with practical knowledge of construction is required. Public School man and A.R.I.B.A. preferred. First-class passmen out and return on completion of agreement. Five years' agreement in first place, salary Rs. 700. Rs. 700. Rs. 800, Rs. 850, Rs. 900 per annum; plus motor-cycle allowance of Rs. 50/- per annum. (Present value of Rupee about 1s. 6d.) Applicants should supply full particulars of training and experience to Box 2,810, c/o Secretary R.I.B.A., 9 Conduit Street, London, W.1.

### PARTNERSHIPS WANTED.

A.R.I.B.A. Modallist, age 33, desires position as Senior with a view to eventual Partnership. Small capital. South or South-West of England. Native of Somerset.—Box 2,100, c/o Secretary R.I.B.A., 9 Conduit Street, London, W.1.

A.R.I.B.A. with special knowledge of schools of all types (London and Country Domestic, Housing) and ecclesiastical fitting; desires to purchase, £400 p.a. share in established practice, preferably as Junior Partner. Has had complete charge of over £100,000 work.—Box 1,310, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

AN A.R.I.B.A., a University Lecturer, desires to enter into a partnership with another architect in or near London.—Apply Box 8,100, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

PARTNERSHIP or Appointment with view to partnership required by an Associate Member. Age 33. A.A. School training. 10 years' office experience. London and the Provinces. Present appointment, Chief Assistant in busy Midland office.—Apply Box 7,100, c/o Secretary R.I.B.A., 9 Conduit Street, London, W.1.

### DISPOSAL OF PRACTICE.

MEASONS desires to sell general practice for health reasons.—Box 1,000, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

### OFFICE ACCOMMODATION.

SENIOR Member offers furnished Office Accommodation in "The Temple" on moderate terms. Suit Junior-commencing practice. Or London address for provincial firm.—Write Box 2,090, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

MEMBER of the Institute wishes to meet another member who will take just share of his office at Lincoln's Inn Fields, W.C. Good light, mutual assistance might be arranged.—Apply Box 2,100, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

WELL-LIGHTED room 11 ft. 6 in. by 13 ft. Two windows; central heating, at £60 per annum including heating, lighting and cleaning.—Apply Box 9,100, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

MEASONS having three light and furnished offices in Bloomsbury Square, wishes to share same with another architect, in order to reduce working expenses. Rent, including heating, light and cleaning, £1 weekly.—Apply Box 3,100, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

### OFFICE ACCOMMODATION WANTED.

MEMBER practising in London requires office accommodation which includes own private office, with use of clerk to take 'phone messages, etc.—Apply Box 2,100, c/o The Secretary R.I.B.A., 9 Conduit Street, London, W.1.

### EASTBOURNE EDUCATION COMMITTEE.

#### HIGHER EDUCATION.

#### SCHOOL OF ART AND CRAFTS.

Principal: H. B. Faulkner, A.R.C.A., (Lond.)

WANTED: to commence duty at the earliest possible moment, a qualified Architect (A.R.I.B.A.), to organise a Course and give instruction in all branches of Architecture. The appointment is subject to the final consent of the Council. The Course is intended primarily for young Architects preparing for their R.I.B.A. Examinations.

The Course will be held in the evenings, at the above Institution, and the Architect appointed will be expected to give instruction on at least three evenings per week throughout the Session (38 weeks) part of the time being given to instruction in the History of Architecture. Salary £200 per annum.

No Forms. Applicants must apply by letter, giving full details of their training and experience together with the names of Referees, and be prepared to submit drawings if requested to do so.

Letters should be sent to H. W. Fovargue, Esq., Town Clerk and Secretary, Town Hall, Eastbourne.

### ARCHITECTS' BENEVOLENT SOCIETY

(Insurance Department).

#### HOUSE PURCHASE SCHEME

(for property in Great Britain only).

The Society is able, through the services of a leading Assurance Office, to assist an Architect (or his client) in securing the capital for the purchase of a house for his own occupation, on the following terms:—

#### AMOUNT OF LOAN.

Property value exceeding £660, but not exceeding £2,500, 75 per cent. of the value.

Property value exceeding £2,500, but not exceeding £4,500, 66½ per cent. of the value.

The value of the property is that certified by the Surveyor employed by the Office.

#### RATE OF INTEREST

In respect of loans not exceeding £2,000 5½ per cent. gross.

" " in excess of " 3½ " "

#### REPAYMENT.

By means of an Endowment Assurance which discharges the loan at the end of 15 or 20 years, or at the earlier death of the borrower.

#### SPECIAL CONCESSION TO ARCHITECTS.

In the case of houses in course of erection, it has been arranged that, provided the Plan and Specification have been approved by the Surveyor acting for the Office, and the amount of the loan agreed upon, and subject to the house being completed in accordance therewith, ONE HALF of the loan will be advanced on a certificate from the Office's Surveyor that the walls of the house are erected and the roof on and covered in.

NOTE.—In 1928, over £20,000 was loaned to architects under this scheme, and as a result over £100 was handed to the Benevolent Fund.

If a quotation is required, kindly send details of your age next birthday, approximate value of house and its exact situation, to the Secretary Architects' Benevolent Society, 9 Conduit Street, London, W.1.



- Irish, British School of Archaeology in, 687.
- Italian Art, Concerts at the Exhibition of, (Arnold Silcock), 268.
- Italian Masters and Other Designers, (Major H. C. Corlette), 769, 475.
- Jamaica, Old King's House, 175.
- Jelley, F. R.: Annual Report, 325.
- Jenkins, Gilbert H.: Regional Planning, with special reference to the Greater London Regional Plan, 198; The Design of Modern Railway Stations, 334; Annual Report, 520, 522.
- Jones, Francis: Presentation of the Royal Gold Medal to Dr. Worthington, 363.
- Jones, Ronald P.: The Architect (review), 202; A Handbook of Greek and Roman Architecture (review), 729.
- Jones, W. Campbell: Appointed member of the London Building Acts Committee, 377.
- Keen, Arthur: Vote of Thanks to the President, 13; Waterloo and Charing Cross Bridges, 25; Are Building Bye-laws Destructive of Rural Beauty? 151; Charing Cross Bridge, 208.
- Kent, G. N.: R.I.B.A. Representative on the Technical Committee of B.E.S.A., 69; Facing Bricks, 246; Whitewash for External Use, 315.
- Kenyon, Sir Frederick: Retirement from British Museum, 685.
- Kepple, A.R.S.A.: Four Sketches by Mr. John (Arthur Barclay), 264; [J. W. Mackail], 307.
- Kidd, J. A.: Regional Planning, with special reference to Norwich and Norfolk, 621.
- Kimson, Sydney D.: Vote of Thanks to the President, 223; the late Sir Lawrence Weaver, 441; Annual Report, 520; R.I.B.A. Annual Dinner, 543; Speech at the Conference Banquet, 623.
- Lanchester, H. V.: The Proposed Charing Cross Bridge, 131; The Design of Modern Railway Stations, 334; Annual Report, 522.
- Landscape Architects, The Institute of, 270.
- Lansbury, Rt. Hon. George: Vote of Thanks to the President, 224.
- Laurie, Professor A. P.: Washing Buildings in London, 30; Stone Decay in Sandstone Buildings, 709.
- Lavery, Sir John: To paint Presidential Portrait of Sir Banister Fletcher, 690.
- Lawrence, Sir William: Presentation of the R.I.B.A. London Architecture Medal and Diploma, 165.
- Lectures for Boys and Girls, Christmas Holiday, 107, 277.
- Legal: Jauffred and Gariel and Anor v. Joseph Sunlight (Percy J. Waldrum), 62, 130; [Wilfred Travers], 97; Willcocks and Barnes v. the Paignton Co-operative Society, Limited, 527; Goldberg and Another v. Waite and Waite, 735.
- Lethaby, Professor W. R.: the late Charles H. Moore, 337.
- Levinton, W. J. H.: Are Building Bye-laws Destructive of Rural Beauty, 151; Architects' Drawings of 1800-1851, 512.
- Libraries and Information Bureaux, Association of Special, 648.
- Library, The: Notes by Members of the Literature Committee, 58, 126, 203, 518, 564, 597, 707; -Presentations: A Building Account of Inigo Jones, by Mr. Sigismund Goetze, 22, 69; West Iron, by Maxwell Ayrton, 107; Plates of Dr. King's Tatsumo's Work, 277; The Oxford Dictionary, 304.
- Library Association, 53rd Annual Conference, 714; [W. Theodore Pyfe], 738.
- Llewellyn, Sir William: Vote of Thanks to the President, 12, 223.
- Lloyd, T. Alwyn: Regional Planning with Special Reference to the Greater London Regional Plan, 196.
- Local Authorities, The Mis-use of Power by, 437.
- Locke, illness of Mr. W. J., 307; [Sir John W. Simpson], 518; the late William John (Sir Banister Fletcher), 648, 649.
- London Building Acts Committee, 134, 175, 277, 590, 715, 716; Revision, 687; Sanitary Bye-laws, 719; Deputation to Minister of Health, 683; [Sir Banister Fletcher], 684.
- London House, 738.
- London Pride [Sir Banister Fletcher], 723.
- Longhurst, A. H.: Himalayan Architecture, 251, 300.
- Lutyens, Sir Edwin Landseer, K.C.I.E., 170.
- MacAlister, Ian: Annual Report, 521, 522.
- Macartney, Merlyn Edmund: Receives Knighthood, 646, 686.
- Mackail, Dr. J. W.: Four Sketches by Mr. John Kepple, A.R.S.A., 107; Recent Excavations at Ur, 584.
- MacLennan, T. F.: the late James MacLuttre Henry, 67.
- Mariette's Engravings, Jean [Martin S. Briggs], 124.
- Martin-Kaye, N.: Schools of Architecture, Municipal School of Arts and Crafts, Southend-on-Sea, 271.
- Mayo, The Earl of: The Thames Valley Preservation Scheme, 493.
- Members: Nominations, 34, 107, 177, 277, 313, 437, 534, 590, 733; Election, 69, 107, 110, 248, 301, 437, 531, 599, 604, 649; Applications, 69, 108, 176, 244, 277, 353, 388, 531, 590, 649, 748; Remuneration, 69, 176, 277, 353, 437, 531, 599, 649; Retirements, 69, 277, 354, 437, 688; Resignations, 176, 277, 354, 437, 531, 688; Suggested New Class of Retired, 277.
- Members' Column, 39, 71, 110, 140, 170, 215, 247, 280, 316, 350, 391, 440, 492, 546, 572, 603, 652, 692, 720, 756.
- Miers, Sir Henry: Presentation of the Royal Gold Medal to Dr. Worthington, 363.
- Milburn, T. R.: Report on the Annual Conference of the National Association for the Prevention of Tuberculosis, 69, 135.
- Millard, Walter: The late Frank Thomas Baggallay, 379; The late Frederick George Knight, 742.
- Miller, James: Appointed member of the Royal Fine Art Commission for Scotland, 133.
- Minutes: [Opening Meeting] 4 November, 40; 18 November, 71; 2 December, 110; 16 December, 140; 16 January, 170; 20 January, 215; [Special Meeting], 3 February, 248; 3 February, 248; 17 February, 280; 3 March, 316; 17 March, 356; 7 April, 391; [Business General Meeting], 7 April, 391; 28 April, 492; [Annual General Meeting], 12 May, 536; 26 May, 572; 16 June, 603; [Special Meeting], 23 June, 652.
- Moak Beeton, Lord: Vote of Thanks to the President, 12.
- Moore, the late Charles H. [Professor W. R. Lethaby], 337.
- Morrison, H.: Charing Cross Bridge, 209.
- Mott, Sir Basil: The Preservation of St. Paul's Cathedral, 676.
- Mount Pleasant Artists' Rest Home, 683.
- Munby, Alan E.: The Demon of Science-Botulism, 75, 88; Sessional Papers and the Closure, 96; Facing Bricks, 246; Discoloration of Dis-temper, 308; Primrose Coloured Dis-temper, 317; Appointed R.I.B.A. Representative at the B.E.S.A. Conference, 599; Barium Plaster for X-Ray Rooms (review), 646; Water Softening (review), 686; Appointed R.I.B.A. Representative on the Technical Committee of the B.E.S.A., 687.
- Museum Hours Extension, A Commemoration of, 489.
- National Gallery, Mosaics on the Staircase of the, 687.



- New Original Drawing by Mr. Edmund H., 276.
- Newton, Professor W. G.: Antonio da San Gallo the Younger, 471; Paul Waterhouse, 728.
- Norburn, G.: Regional Planning with Special Reference to the Greater London Regional Plan, 205.
- Notes from the Minutes of the Council, 21 October, 68; 4 November, 107; 2 December, 174; 6 January, 276; 1 February, 353; 3 March, 437; 7 April, 500; 12 May, 590; 16 June, 649; 7 July, 686; 21 July, 716.
- Notices, 34, 69, 197, 198, 177, 214, 244, 278, 312, 354, 387, 437, 489, 523, 570, 601, 650, 690, 718, 747.
- Obituary: Adams, H. Percy (Charles Holden), 431; Beggally, Frank Thomas (Walter Milard), 379; Belfour, Lord, 439; Benson, C. B., 171; Brightook, C. B., F.S.A., Sir Edward, 698; Brinkley, Sir Selton, 742; Chambers, W. A., 171; Craigmiles, James H., 598; Ditchfield, The Rev. P. H., 742; Dunn, James Bow (Sir George Washington Browne), 711; Esler, Lord, 207; Finnegan, W., 599; Goodhue, Bertram Greenway, 176; [W. Adams Delano], 97; Guntton, Joseph, 568; Hardcastle, Col. W. J., 742; Hastings, Thomas (Professor C. H. Reilly), 24, 176; Henry, James Macintyre [T. F. MacLennan], 67; Hudson, A. A., 743; Knight, F. G. [Walter Milard], 742; Le Corb. Dr. Albert Von, 325; Locke, William John (Sir John W. Simpson), 518; [Sir Banister Fletcher], 648; Larimer, Sir Robert, 68; Lucas, William Louis, 171; Medary, Milton, 68; Moore, A. M., Charles H. [Professor W. R. Lethaby], 337; Morley, W. J., 568; Nisbet, John Brym, 525; Norbury, W. A., 744; Oswald, Joseph, 568; Saunders, Theodore Ridley, 67; Scott, Geoffrey (Edward Warren), 25; Scott, W. Gillbee [J. Douglas Scott], 712; Stoddart, Donald McKay [Alexander Paterson], 311; Tension, A. H. Ryan, 743; Walker, W. T. M., 68; Weaver, Sir Lawrence, K.B.A., F.S.A. [Professor A. E. Richardson], 206; [Sydney D. Kinsman], 241; Webb, Sir Aston [E. Guy Dawber], 710, 744; Woodhouse, John Henry, 567; Young, Keith Downs (William A. Pite), 207.
- Official Architecture and the Design of Public Buildings [Sir A. Brunwell Thomas], 169.
- Ogden, Paul: Greater Hippias, 39.
- Oliver, Basil: Awarded Medal by Essex, Cambridge and Herts Society of Architects, 65.
- Oliver, P. M.: Presentation of the Royal Gold Medal to Dr. Worthington, 166.
- Orpen, Sir William: Unveiling of the Portrait of Mr. Walter Tappin, 15.
- Osberg, Professor Ragnar: Elected Honorary Foreign Academician, 591.
- Owen, R. Wynn: Are Building Bye-laws destructive of Rural Beauty? 150; The Design of Modern Railway Stations, 334.
- Paris, British Institute in, 685.
- Patterson, Alexander N.: the late Donald McKay Stoddart, 311.
- Pouch, Captain C. Stanley: The Preservation of St. Paul's Cathedral, 656, 676.
- Pearson, John A.: elected Associate of the Royal Canadian Academy, 170.
- Pepler, G. L.: Are Building Bye-laws destructive of Rural Beauty? 146.
- Perman Art, The International Exhibition of [Arnold Silcock], 736.
- Pick, Frank: The Design of Modern Railway Stations in Europe and America, 319, 336.
- Pierpont and Lord Chattermont [Graham B. Tibbs], 54; [S. B. Caudwell], 97.
- Pie, Professor Beresford: Antonio da San Gallo the Younger, 472; Architects' Drawings of 1800-1851, 311.
- Pite, William A.: The late Keith Downs Young, 207.
- Plaster and Cement, Painting on [Dr. R. E. Stradling], 566.
- Playing Fields Association, The National, 736.
- Poole, Henry: Erection of Memorial Fountain in Memory of, 382.
- Primmer, New R.I.B.A., 312, 690; Appointment of Jury of Assessors, 716.
- President's Addresses: INAUGURAL ADDRESS, 3; Reply to Vote of Thanks, 15; Vote of Thanks by Lord Monk Bretton, 12; Sir William Llewellyn, 12; Arthur Keen, 15; ADDRESS TO STUDENTS, 219; Vote of Thanks [Lord Burnham], 223; [Sir William Llewellyn], 223; [Sydney D. Kinsman], 223; [George Lansbury], 224.
- Prizes and Studentships, 175, 215, 276, 353, 530, 570, 599, 687; Deed of Award, 172; Review of the Work submitted for [W. H. Ansell], 224; [Sir Banister Fletcher], 235; R.I.B.A. Maintenance Scholarship, 175, 569, 686, 716; Tate Prize and the Victory Scholarship, 244; Popin Studentship, 276; R.I.B.A. Essay, 276; R.I.B.A. [Alfred Bosson] Travelling Studentship, 276; R.I.B.A. Prizes for Public and Secondary Schools, 276, 687, 744; Athens Bursary, 354, 437, 687; Grinnell Gold Medal, 530; Rome Scholarship in Architecture, 501; Godwin and Wimperis Bursary, 687; Henry Jarvis Studentship, 716; [Archibald Dawson] Scholarship, 718, 744.
- Probationers, R.I.B.A., 67, 106, 215, 278, 312, 385, 531, 640, 689, 717, 744.
- Professional Conduct and Practice, 490.
- Prosser, Donald S.: The Design of Modern Railway Stations, 339.
- Purdon, W. S.: The Education of an Architect, 645.
- Queries and Replies: London Building Act, 1894 [J. Douglas Scott], 38; [J. Alan Slater], 38; The Fire Proofing of Thatch [Charles F. Slipper], 108; Weather-proof Roughcast [A. H. Barnes], 178; Facing Bricks [P. J. Wahlram], 240; [Alan E. Munby], 240; [G. N. Kent], 240; [G. Reavell], 267; Durable Whitewash for External Use [G. N. Kent], 315; Freeholds [J. Douglas Scott], 389; [Charles Woodward], 389; [Percy J. Wahlram], 389; [J. Ernest Francis], 439; Basis of Fees [Charles Woodward], 500; [J. Douglas Scott], 500; [W. Gillbee Scott], 590.
- RAILWAY STATIONS IN EUROPE AND AMERICA, THE DESIGN OF MODERN [Frank Pick], 319, 336; [Lord Aberconway], 333; [Sir Herbert A. Waller], 333; [Sir Harold Hartley], 334; [R. Wynne Owen], 334; [H. V. Lancaster], 334; [C. W. Clark], 335; [H. G. Isherson], 335; [J. S. Wilson], 336; [Sir Banister Fletcher], 336; [Donald S. Prosser], 339.
- Ramsey, Stanley C.: Regional Planning: with special reference to Norwich and Norfolk, 620.
- Rayson, T.: Regional Planning: with special reference to Norwich and Norfolk, 621.
- Reavell, G.: Facing Bricks, 267.
- REGIONAL PLANNING, WITH SPECIAL REFERENCE TO THE GREATER LONDON REGIONAL PLAN [Dr. Raymond Unwin], 183, 197, 205; [Sir Edgar Bonham Carter], 194; [Colonel C. H. Beesley], 194; [Henry V. Ashley], 193, 197; [C. R. Ashbee], 195; [Sir Theodore Chambers], 195; [P. Alwyn Lloyd], 196; [Edward G. Culpin], 196; [Montagu Harris], 196; [W. R. Davidge], 197; [T. Charles], 197; [Major H. C. Corlette], 197; [Gilbert H. Jenkins], 198; [G. Norburn], 225.
- Regional Planning, with special reference to Norwich and Norfolk [W. Harding Thompson], 610, 623.
- Register of Architects willing to take Recognised Schools' Students in their offices, 386.
- Registration of Architects [Major Harry Barnes], 341.
- Reilly, Professor C. H.: the late Thomas Hastings, 24.



Reviews: Basil Oliver's *The Cottages of England* [C. F. A. Voysey], 36; Carl Huser's *Die Architektur des Deutschen Renaissance* [Louis Ambler], 36; Mrs. C. M. Villiers-Stuart's *Spanish Gardens* [H. C. Hughes], 37; W. T. Creswell's *The Lane of Fountains* [W. E. Watson], 38; Sir John Soane's *Lectures on Architecture* [W. E. Vernon Crompton], 96; Conrile Bellin's *Description de la belle et grand Colonne Historique dressée à l'Honneur de l'Empereur Theodose* [A. E. Henderson], 96; Giovanni Giovannini's *La Technica della Costruzione presso il Romano*, and G. Cozzoli's *Ingegneria Romana* [Dr. Thomas Ashby], 115; A. R. Power's *Repair of Ancient Buildings* [Frank R. Huys], 127; *Notes on some Recent Foreign Periodicals* [Graham B. Tubbs], 129, 167, 238, 362, 588, 679; Maxwell Ayrton and Arnold Silcock's *Wrought Iron and its Decorative Use* [Charles Spooner], 166; H. B. Creswell's *The Honeywood File* [Herbert W. Willis], 167; G. R. Geertlings' *Metal Crafts in Architecture* [George Drysdale], 199; Charles Z. Klauder and Herbert C. Wise's *College Architecture in America* [Arthur Bartlett], 200; Manson and Drury's *Experimental Building Science*, Volume 2 [H. D. Searles-Wood], 201; *Photographs and Drawings of the House of Japan* [Arnold Silcock], 201; Fisher and Yebury's *Modern Danish Architecture* [C. Lovett Gill], 202; Clough Williams-Ellis's *The Architect* [Ronald P. Jones], 202; Edith A. Browne's *Great Buildings and How to enjoy them* [F. H. M.], 204; Bruno Taut's *Modern Architecture* [J. M. E.], 204, 311; Dr. Werner Hegemann's *Facades of Buildings Old and Modern, Building and Dwelling Houses* [J. M. E.], 204; Gerald G. Geertling's *Wrought Iron in Architecture* [D. T. F.], 204; Sir Reginald Blamfield's *Byways* [A. S. G. Butler], 235; A. C. Freyer's *Wooden Monumental Effigies in England and Wales* [Charles Spooner], 237; Sydney D. Kitson's *John Sell Cotman*, 267; Royal Commission on Historic Monuments [England] [Walter H. Godfrey], 338; Szabolcsi's *Projects in Design, Sculpture and Architecture* [R. A. Duncan], 338; *Electrolysis of Water Mains, Pipes, etc.* [H. D. Searles-Wood], 436; *The Studio Year Book of Decorative Art*, 1930 [Arnold Silcock], 315; Charles Evan Fowler's *Ideals of Engineering Architecture* [Sydney Toy], 324; *Royal Hospital, Greenwich* [P. C. Agutter], 359; Le Corbusier's *The City of Tomorrow and its Planning* [H. W. Chester], 359; *First Report of the Greater London Regional Planning* [W. Harding Thompson], 360; Ragnar Ostberg's *Stockholm Town Hall* [H. C. Hughes],

Reviews—contd., 361; H. M. Vernon and T. Bedford's *A Study in Heating and Ventilation in Schools* [A. H. Barnes], 389; *Barium Plaster for X-Ray Rooms* [Alan E. Munby], 649; Louis Blanc's *Le Fer Forge en France* [Edward Warren], 677; Seidman's, Hanka's *International Airports* [John Dover], 678; Frank T. Baggallay's *Vitruvius Re-translated* [Professor Frank Grahner], 677; *Water Softening* [Alan E. Munby], 680; Jean Stern's *François-Joseph Belanger* [Sir John W. Simpson], 695; T. K. and H. V. Hubbard's *Our Cities, To-day and To-morrow* [Dr. Raymond Unwin], 705; *Investigation of Atmospheric Pollution* [Percy J. Waldram], 707; Professor Tanczer Boronius's *Florentine Frescoes* [H. C. Hughes], 708; *Bulletin of the Society for the Research in Chinese Architecture*, No. 1 [Arnold Silcock], 706; Paul Waterhouse: *A Collection of Certain of His Papers and Addresses* [W. G. Newton], 725; D. S. Robertson's *Handbook of Greek and Roman Architecture* [Ronald P. Jones], 729; W. Aumonier's *Modern Architectural Sculpture* [Robert Atkinson], 731; *Regional Planning Reports* [W. Harding Thompson], 732; C. S. Taylor and V. R. Bliss, *Hotel Planning and Outfitting* [C. F. A. Voysey], 733; *The Effect of Distribution and Colour on the Suitability of Lighting for Clerical Work* [Percy J. Waldram], 734; R.I.B.A. London Architecture Medal and Diploma, 34, 648; Presentation to J. Murray Easton and Howard Robertson, 164; [Henry V. Ashley], 164; [J. Murray Easton], 164; [Sir William Lawrence], 165; [Captain H. Wykeham], 165; Richardson, Professor A. E.: The late Sir Lawrence Weaver, K.B.E., F.S.A., 206; Architects' Drawings of 1800-1851, 495, 313, 597; Exhibition of Students' Work at the Central School of Arts and Crafts, 387; appointed member of the Thames Bridges Conference, 599; Some Early Drawings by Professor C. R. Cockerell, 725; Richmond, Ian Archibald: Appointed Director of the British School at Rome, 170; Roads of Remembrance Committee, Sculptor Section, 137; Robertson, Howard: Presentation of the R.I.B.A. London Architecture Medal and Diploma, 164; Robertson, Louis S.: Architects' Drawings of 1800-1851, 313; Robertson, Sir Robert: The Design of Science Buildings, 86; Rolson, P. A.: English Church Art, 680, 736; Rodd, Sir Rennell: Antonio da San Gallo the Younger, 471;

Roman Architecture, Recent Criticism of, [Dr. Thomas Ashby], 115; Rome, British School at, 170, 210, 591, 687; Rothenstein, Professor William: Antonio da San Gallo the Younger, 472; Royal Academy of Arts, 214; The Architectural Room at Exhibition, 587; Royal Gold Medal, 34, 349; Dr. Percy Scott Worthington Nominated, 241; Presentation to Dr. Percy Scott Worthington [Sir Banister Fletcher], 359; [Dr. Worthington], 360; [Sir Henry Moss], 363; [Francis Jones], 363; [Lord Crawford], 366; [P. M. Oliver], 366; [E. D. Simon], 366; [Dr. P. S. Allen], 368; Royal Society of Arts, 270, 709; Rural Amenities Bill, The, 528; [Sir E. Hilton Young], 566; Russell, Robert Tor: C.I.E., 566; St. Paul's Cathedral: 431, 591, 530; Report by Works Committee, 209; Isometric Drawing, 214, 244, 319; The Preservation of [Sir Banister Fletcher], 635, 676; [Captain C. Stanley Peach], 636, 676; [W. Godfrey Allen], 656, 676; [Canon Alexander], 676; [Sir Basil Mott], 676; Salaried Members' Committee, 330; [H. B. Creswell], 516; Salway, Jasper: Architects' Drawings of 1800-1851, 512; SAN GALLO THE YOUNGER, ANTONIO DA, [J. Hubert Worthington], 443, 474; [Sir Rennell Rodd], 477; [Professor W. G. Newton], 471; [Bishop Gore], 472; [Professor Beresford Pile], 472; [Professor William Rothenstein], 472; [Professor Bernard Ashmole], 472; [Arthur T. Bolton], 473; [Sir Banister Fletcher], 474; Sandstone Buildings, Stone Decay in, [Professor A. P. Laurie], 709; Scale of Charges, Revision of R.I.B.A., 717, 718; Schools of Architecture: Liverpool, 174; Manchester, 174; Leeds, 174; Cambridge, 174; Toronto, 174; Sheffield, 174; Birmingham, 175, 687; Walsley, 175, 353; Southend-on-Sea, 174; [N. Martin-Kaye], 271, 687; Newcastle-upon-Tyne, 353, 687; Nottingham, 330; Humber [Professor Claude Bailey], 302; Cape Town, 686; The Polytechnic, Regent Street, 687; Aberdeen, 687; The Architectural Association, 687; Royal West of England School of Architecture, 687; Schools: R.I.B.A. Prizes for Public and Secondary, 276; Grants for Libraries, 331; Architecture in Secondary, 687; Technical Colleges and Art Schools, 687;



- Science and the Art of Architecture, [Ronald Aver Duncan], 246.
- Science Buildings, THE DESIGN OF, [Alan E. Mumby], 75, 88; [H. T. Tizard], 85; [Sir Richard Gregory], 85; [W. R. Davies], 86; [Sir Robert Robertson], 86; [Professor A. V. Hill], 87; [Sir Banister Fletcher], 88, 137; [Beresford Ingram], 88; [P. J. Waldram], 88; [Major H. C. Corlette], 90.
- Science Building Committee. Notes by Members of the: Electrolysis of Water Mains, Pipes, etc. [H. D. Sefton-Wood], 426; A Study in Heating and Ventilation in Schools [A. H. Barnes], 389; Plaster for X-Ray Rooms [Alan E. Mumby], 546; Water Softening [Alan E. Mumby], 680; The Investigation of Atmospheric Pollution [Percy J. Waldram], 707; The Effect of Distribution and Colour on The Suitability of Lighting for Clerical Work [Percy J. Waldram], 714.
- Scott, J. Douglas: London Building Act, 1894, 38; appointed member of the Salaried Members Committee, 277; Freeholds, 389; Basis of Fees, 390; the late W. Gillbee Scott, 714.
- Scott, M. H. Baillie: ARE BUILDING BY-LAWS DESTRUCTIVE OF RURAL BEAUTY? 143, 152.
- Scott, the late Geoffrey (Edward Warren), 25.
- Scott, W. Gillbee: Basis of Fees, 390; Annual Report, 521, 522; the late W. Gillbee [J. Douglas Scott], 714.
- Sefton-Wood, H. D.: appointed R.I.B.A. Representative on the Committee for First International Congress for Concrete and Reinforced Concrete, 107; Experimental Building Science, Volume 2 (review), 201; Appointed R.I.B.A. Delegate at the Royal Sanitary Institute Congress, 277; Electrolysis of Water Mains, Pipes, etc., 426; Annual Report, 521; Report of the Conference on Damage to Plumbing Work Caused by Frost, 681; Re-appointed R.I.B.A. Representative on the Standing Committee on Water Regulations of the British Waterworks Association, 687.
- Sessional Papers: and the Closure, [Alan E. Mumby], 96.
- Shaw, Evelyn Campbell: C.V.O., 566.
- Shelley, A. N. C.: ARE BUILDING BY-LAWS DESTRUCTIVE OF RURAL BEAUTY? 147, 152; The Public Control of Building, 708.
- Shoosmith, Arthur Gordon: O.B.E., 170.
- Silcock, Arnold: Photographs and Drawings of the Bank of Japan (review), 203; Concerts at the Exhibition of Italian Art, 268; The Studio Year Book of Decorative Art, 1930 (review), 515; Bulletin of the Society for the Research in Chinese Architecture, No. 1 (review), 706; The International Exhibition of Persian Art, 736.
- Sinmons, Sir Percy C.: The Proposed Charing Cross Bridge, 731, 208.
- Sinon, E. D.: Presentation of the Royal Gold Medal to Dr. Worthington, 366.
- Simpson, Sir John W., the late William John Locke, 518; Francis-Joseph Belanger (review), 605.
- Skipper, Charles F.: The Fire Proofing of Thatch, 108.
- Slater, J. Allen: London Building Act, 1894, 38.
- Smith, H. Harper (Lord Mayor of Norwich): Speech at Inaugural Meeting at Norwich Conference, 607; Speech at Conference Banquet, 624.
- Smoke Abatement, Report of Sub-Committee, 26, 69.
- Soane's Museum, Sir John, 738.
- Southwark, The Bishop of: Bad Taste in Churches, 517.
- S.P.A.B.: 69, 521, 566; Scholarship, 708; Index of Architectural Records, 714.
- Spooner, Charles: Wrought Iron and its Decorative Use (review), 166; Wooden Monumental Effigies in England and Wales (review), 277.
- State Schools and Poor Law Work, 137.
- Steel Structures Research Committee, 714.
- Stockholm Exhibition, 1930, The [L. E. Williams], 557.
- Stone Walls on Gateposts [Percival M. Fraser], 517.
- Stradling, Dr. R. E.: Painting on Plaster and Cement, 566.
- Strang, C. H.: Regional Planning, with Special Reference to Norwich and Norfolk, 619.
- Students, R.I.B.A., 53, 58, 137, 212, 277, 353, 354, 437, 531, 648, 668.
- Sullivan, L. Sylvester: R.I.B.A. Representative of University of London Architectural Education Committee, 175; Annual Report, 521, 522.
- Sulham, Sir John: Recent Excavations at Ur, 583; Regional Planning: with special reference to Norwich and Norfolk, 618; Impression of the Norwich Conference, 640.
- Sunlight League, The [Francis Hooper], 709.
- Swarbrick, John: Standards of Adequacy of Daylight Illumination and Reasonable Fenestration 513; Elements of Light, 365, 645; appointed R.I.B.A. representative on the Joint Committee on School Lighting, 649.
- Swift, Mr. Justice: R.I.B.A. Annual Dinner, 543.
- Tapper, Unveiling of the Portrait of Mr. Walter, 13 [Sir Banister Fletcher], 15; [Sir William Orpen], 15; (Walter Tapper), 15; Nominated Associate for the proposed Guildford competition, 490.
- Tatchell, Sydney: Annual Report, 520, 522.
- Thomas Bridges Conference, The, 386, 569; Appointment of Members, 599.
- THAMES VALLEY PRESERVATION Scheme, 111 [Professor Patrick Abercrombie], 283, 299; [Lord Desborough], 295; [The Earl of Mayo], 295; [Professor S. D. Adair], 295; [Colonel R. W. Bennett], 295; [Edward Warren], 296; [Dr. Raymond Unwin], 297; [W. Harding Thompson], 297; [Arthur Crow], 298; [Rail Hulmes], 298; [Major H. C. Corlette], 298; [Sir Banister Fletcher], 299.
- Thomas, Sir A. Beattie: Official Architecture and the Design of Public Buildings, 160.
- Thompson, W. Harding: ARE BUILDING BY-LAWS DESTRUCTIVE OF RURAL BEAUTY? 148; The Thames Valley Preservation Scheme, 297; First Report of the Greater London Regional Planning Committee (review), 560; appointed member of the Thomas Bridges Conference, 599; appointed R.I.B.A. representative at Town Planning Institute Conference, 599; Regional Planning, with special reference to Norwich and Norfolk, 610, 623; Regional Planning Reports (review), 732.
- Tizard, H. T.: The Design of Science Buildings, 85.
- Town Planning Institute, 714; Scottish Branch, 528.
- Town Planning in Germany, 489.
- Toy, Sydney: The Church of the Holy Sepulchre at Jerusalem, 487; The Ideals of Engineering Architecture (review), 514.
- Travers, Wilfrid: Jaffred and Gariel and Anor c. Joseph Sunlight, 67.
- Tropical Agriculture, Trinidad, Imperial College of [Major H. C. Corlette], 90.
- Tabbs, Graham B.: Printed and Lord. Chattermont, 54; Notes on some Recent Foreign Periodicals (review), 129, 167, 238, 562, 586, 679.
- Tuberculosis, National Association for the Prevention of [T. R. Millburn], 63, 133; H. M. Farweather appointed R.I.B.A. representative at 16th Annual Conference, 599, 738.
- Unwin, Dr. Raymond: REGIONAL PLANNING, WITH SPECIAL REFERENCE TO THE GREATER LONDON REGIONAL PLAN, 181, 197, 205; The Thames Valley Preservation Scheme, 297; Annual Report, 522; Recent Excavations at Ur, 584; Our Cities, To-day and Tomorrow (review), 703.



- UR, RECENT EXCAVATIONS AT [C. Leonard Woolley], 575; [Dr. J. W. Mackail], 584; [Dr. Raymond Unwin], 584; [A. S. Whitburn], 585; [E. Stanley Hall], 585; [Henry M. Fletcher], 585; [Sir Banister Fletcher], 585; [Sir John Sulman], 585.
- Varnhem Abbey, Sweden [L. E. Williams], 49.
- Voysey, C. F. A.: The Cottages of England [review], 56; English Church Art, 644, 708; Hotel Planning and Outfitting [review], 733.
- Waid: Presentation of the 1929 Medal of Honour of the New York Chapter of the American Institute of Architects to D. Everett, 385.
- Waldram, Percy J.: Juffred and Gariel v. Joseph Sunlight, 62, 130; The Design of Science Buildings, 88; Facing Bricks, 246; Standards of Adequacy of Daylight Illumination and Reasonable Penetration, 382; Freeholds, 389; Easement of Light, 516, 590; appointed R.I.B.A. representative on the Daylight Illumination Sub-Committee of the National Illumination Committee of Great Britain, 509; The Investigation of Atmospheric Pollution [review], 707; The Effect of Distribution and Colour on the Suitability of Lighting for Clerical Work [review], 734; Height of London Buildings, 735.
- Walker, Sir Emery, 170.
- Walker, Sir Herbert A.: The Design of Modern Railway Stations, 333.
- Walker, R. B.: Regional Planning, with special reference to Norwich and Norfolk, 622.
- Wallis, Major F. A., M.C., appointed Institute of Builders' representative on the Board of Architectural Education, 530.
- Warren, Edward: The late Geoffrey Scott, 25; Are Building Bye-laws Destructive of Rural Beauty? 149; The Thames Valley Preservation Scheme, 206; Le Fer Forge en France [review], 677.
- Washing of Stone Buildings, A Plea for the [J. Allen Howe], 16; [A. P. Laurie], 39.
- Water Users, The National Association of, 68, 334.
- Waterhouse, Paul [Professor W. G. Newton], 728.
- Waterloo and Charing Cross Bridges [Arthur Keen], 23.
- Waterlow, Sir William: R.I.B.A. Annual Dinner, 522.
- Watling, C. [Sheriff of Norwich]: Speech at Conference Banquet, 626.
- Watson, W. E.: The Law of Fixtures [review], 58; The Meaning of "Completion", 64; Institute of Arbitrators, 735.
- Wearing, Stanley J.: Regional Planning with special reference to Norwich and Norfolk, 622; speech at the Conference Banquet, 630.
- Weaver, the late Sir Lawrence, K.B.E., F.S.A. [Professor A. E. Richardson], 206; [Sydney D. Kitson], 241.
- Webb, Sir Aston [E. Guy Dawber], 710.
- Webb, Maurice E.: Annual Report, 522.
- Wedgwood, The Bicentenary of Josiah, 33.
- West, Gordon: Regional Planning, with special reference to Norwich and Norfolk, 618.
- West, James Grey, O.B.E., 170.
- Westminster Abbey [W. Foxley Norris], 25, 59, 139, 210.
- Westminster, Dean of: [Westminster Abbey], 25.
- Whitburn, A. S.: Recent Excavations at Ur, 585.
- White Lead Paint on External Work, Discoloration of, 312.
- Wightman, T. B.: Regional Planning, with special reference to Norwich and Norfolk, 622.
- Wild, Sir Ernest, K.C.: The R.I.B.A. Annual Dinner, 559.
- Williams, L. E.: Varnhem Abbey, Sweden, 49; The Stockholm Exhibition, 1930, 557.
- Willis, Edward: Are Building Bye-laws Destructive of Rural Beauty? 145.
- Wills, Herbert W.: The Honeywood File [review], 167.
- Wilson, J. S.: The Design of Modern Railway Stations, 336.
- Wilton, J. W.: Are Building Bye-laws Destructive of Rural Beauty? 149.
- Window Cleaning, Safety Belts in [Louis Blanc], 646.
- Winchester Palace [Arthur T. Bolton], 43.
- Woodward, Charles: Freeholds, 389; Bush of Fens, 390.
- Woolley, C. Leonard: RECENT EXCAVATIONS AT URS, 575.
- Woolwich Polytechnic, 528.
- Worthington, J. Hubert: ANTONIO DA SAN GALLO THE YOUNGER, 445, 474.
- Worthington: Presentation of the Royal Gold Medal to Dr. Percy Scott, 359, 360.
- Wright, A. R. L.: appointed Deputy Hon. Secretary R.I.B.A. for Western Australia, 599.
- Wykeham, Captain H.: Presentation of the R.I.B.A. London Architecture Medal and Diploma, 165.
- Wynnes, J. C.: and the World Engineering Congress, Tokyo, 457.
- Young, A.: Regional Planning, with special reference to Norwich and Norfolk, 622.
- Young, Sir Hilton: The English Countryside, 596.
- Young, the late Keith Downs [William A. Pite], 207.



# List of Illustrations

Acoustics, Bach's Music and Church; Leipzig Thomaskirche, Plan, 135; Cross Section, 136; Interior Looking East, 157; Exterior from the West, 157; Interior, 158; St. Margaret's, Westminster, 160.

Architects' Drawings of 1800-1821: Railway Bridge over Regent's Canal, by J. C. Bourne, 404; London and Birmingham Railway: Entrance to Euston Station, by T. Allom, 495; West Front of St. Paul's Cathedral, by T. Malton, 497; Post Office, Dublin, by T. Malton, 497; Imaginative Composition, by Joseph Gandy, 500; Great Ventilation Shaft, Kilby Tunnel, by J. C. Bourne, 501; Birmingham Station, by J. C. Bourne, 502; Central Station, Newcastle, by John Dobson, 503; St. George's Hall, Liverpool, by H. L. Elmes, 503; Interior of the Ulpian Basilica, Rome, by C. R. Cockerell, 505; "Drop Curtain"—View of Famous Buildings, by C. R. Cockerell, 505; Restoration of the Thermae of Caracalla, by C. R. Cockerell, 506; Perspective View of a Temple of Victory, according to Ancient Images, by Professor T. L. Donaldson, 507; St. Peter's, Rome, by John Goldsmith, 508; Design for High School, Edinburgh, by Thomas Hamilton, 508; St. Mary's Church, Wakefield, by G. E. Street, 509.

Belanger: François-Joseph: Sainte-James, 603, 703; Lansdowne House, 607; House, Rue Pigalle, Paris, 609; Bagatelle, the Garden Front, 700; Bagatelle, Plans and Elevations, 701; Three Houses, Rue Sainte-George, Paris, 704.

Byways: Japanese Palace, Dresden, 235; The Pool in the Garden, Nimes, 236; America, Veitshöchheim Gardens, 237.

Charing Cross Bridge, The Proposed, 61; Cockerell, Some Early Drawings by Professor C. R.: The "Black Joke," 722; The Thames at Gravesend, 725; Rochester Bridge, 726; Cutler, 726; Thames Boat, 727.

Conference at Norwich, British Architects: The Bishop's Palace Gate, by John Sell Cotman, 606; Blickling Hall, 607; Norwich Cathedral from South-east, 609; Tombland, Norwich 616; Clay Church, 619; Ebn Hill, Norwich, 625; East Barham Manor, 631; Wymondham Market Cross, 643; Cotman, John Sell: The Water Tower, York, 307.

Frontispieces, Sir Banister Fletcher, 2; St. John's, Westminster, Water Colour Drawing, by A. B. Yeates, 427; La Fontana Maggiore, Perugia, Etching by W. H. Ansell, 74; Water Colour Sketch, by George Devey, 114; Ewehine, Hospital and Church, Pencil Drawing by R. Norman Shaw, 142; Design for a Catalogue (Guiseppe Galli Bibiena), 218; Original Drawing by G. P. Panani, 282; Upton Church, Norfolk: East End (John Sell Cotman), 218; Original Drawing by Mauro Tesi, 394; Boulogne, Water Colour Sketch by George Devey, 338; Rome, Water Colour Sketch by Sir Ernest George, 374; La Place de Louis XVI et la Salle d'Opera, from an Engraving in Sir John Simpson's Collection, to face page 695; Original Pencil Sketch by C. R. Cockerell, 722.

Goodhue, Drawings and Sketches, by the late Bertram Goodhue: Water Colour Sketch of a Church, 98; Pencil Sketch of a Large Building with Porch and Terrace, 99; Pen and Ink Sketch "Of Persian Gardens," 99; Black Crayon Sketch for a House in Westchester, New York, 100.

Himalayan Architecture: Monastery of Horinpi, 251; Pent-roofed Wooden Shrine at Ludra, 253; Khuda belonging to Sengri Rikhi Temple, Sarai, 252; Siva Temple at Dalai, 253; Siva Temple at Kunshausen, 253; Temple of Triyuga Narayan at Dyat, 256; Temple of Hidimba at Manali, 257; Wooden Pillar from a Himalayan Pent-roofed Shrine, 258; Wooden Window from Himalayan Pent-roofed Shrine, 259; Wooden Window of Hidimba's Temple, 260; Wooden Door of Hidimba's Temple, 260; Stone Window of a Modern Himalayan Shrine, 260; Stone Door of Ruined Siva Temple at Daul, 260; Wooden Capital from Sakti Devi Temple at Chitrari, 261; Rock-cut Capital from Cave 24 at Ajanta, 261; Rock-cut Buddhist Chaitya at Ajanta, 262; Temple near Bhethah, Patan, 300; General View of Pashupati, 303; Yakushiji Pagoda, Japan, 304.

Holy Sepulchre at Jerusalem, Photograph of Model of the Church of the, 487.

Italian Masters and Other Designers: View of Verona, by Bellotto, 369; The Crucifixion, by Andrea Mantegna, 372; The Resurrection, by Andrea Mantegna, 373; Portrait of Gasparina Tornabuoni, by Ghirlandain, 375; Madonna and Child, by Botticelli, 378; Birth of Venus, by Botticelli, 473; The Holy Family in the Carpenter's Shop, by Caracci, 477; City of London from Richmond House, by Canaletto, 486; Whitehall from Richmond House, by Canaletto, 481; A Warrior on Horseback, by Leonardo da Vinci, 485.

Keppie, Four Sketches by Mr. John Town Hall, Crail, 250; The Harbour, Crail, 264; St. Monan's Church, 265; Crail Church, 266.

Legal: Goldberg and Another v. Waite and Waite: Plan of Site, 739.

Mariette's Engravings, Jean: Plan of Château de Sable and its Park, 124; Details of Woodwork from a Doorway, 125; Gate at the Château de Meudon, 126.

Prinetti and Lord Charlemont: Original Frontispiece of Antichità Romane, Vol. 1, 35; Prinetti's Intended Alterations to Frontispieces of Vols. I to IV of Antichità Romane, 35.

Prizes and Studentships, Review of the: Design for a Monastery, 228, 229, 230; Design for a Sports Club, 232, 234.

Railway Stations in Europe and America, The Design of Modern: Grand Central Station, New York, 319; Helsinki, Finland: Main Entrance, Railway Station, 321; Main Entrance Stuttgart Station, 341; Ticket Office in Grand Central Terminal, New York, 322; Low-level Circulating Area, Grand Central Station, New York, 323; Main Concourse, Grand Central Station, New York, 323; Entrance to Platform, Grand Central Station, New York, 325; Quick Service Bar, Buffalo Station, New York, 327; Circulating Area, giving Access to Platforms, Pennsylvania Station, New York, 330; Grand Concourse, Pennsylvania Station, New York, 331; Enquiry Booth on Low-level Circulating Area of Grand Central Terminal, 332.



- Regional Planning with special Reference to the Greater London Regional Plan; Elmwood Road, Looking East, 182; Civic Centre, Leichworth, 183; Pattern from the Forum, Rome, 185; Elevation, compiled not designed, 186; Simple Elevation, 186; Building Areas planned on Background of Open Land, 187; City with defined Suburbs and Satellite Towns, 188; Greater London Region, showing the main developed areas, 189; Radburn, near New York, 191; Cross Section, 192; Parkway Treatment of Highway, 193.
- R.I.B.A. London Architecture Medal and Diploma: The Royal Horticultural Society's New Hall elevation, 164; interior, 195.
- Roman Architecture, Recent Criticism of: Colosseum, interior, 115, 117; Baths of Caracalla, 117; Plan, 119; Pantheon, Side Elevation, 119; Wall from Porch, 120; South Side, 121; West Side of Porch, 121; Plan of Springing of Dome, 122; Cross Section, 123.
- Royal Gold Medal, Presentation to Dr. Percy Scott Worthington; Photograph of Dr. Worthington, 338; Radbrook Prover, Cheshire, 361; Manchester University, Faculty of Arts Building, 361; Manchester College, Oxford: Arkosh Hall, 362; Masonic Temple, Manchester: The Memorial Hall, 364; Central Block, Ashburne Hall, Manchester University, 365; Building for the Faculty of Arts, Manchester University: Entrance Hall, 367; House at Alderley Edge, Cheshire, 368.
- St. Paul's Cathedral: Isometric Drawing, 316; View across the Dome from the South Aisle of Nave, 654; Longitudinal Section, Showing Architectural Decorative and Constructional Details, 655; General Nature of Settlements, 657; Approximate Relative Settlements of Central Structure at Four Levels, 658; Superimposed Plans of Old and New Cathedrals, 659; Architectural Survey: Plan, above Vaulting Level, 659; Isometric Drawing illustrating Extrados of Main Arches, 660; Arches and Roundels in Peristyle before Restoration, 660; Isometric Drawing showing Construction of Peristyle, 661; Plan of Drain Area showing Leveling and Plumbing Points, 662; Architectural Survey: Elevation of Pier showing Condition of masonry before Restoration, 663; Catenary Curves in Relation to the Structure, 664; Model with Weighted Chain in Position, 664; Original Study by Wren for Dome of Cathedral, 665; Model of one of the Piers showing Hidden Construction, 666; Iron Tie Bars inserted by Sir Christopher Wren, 667; One of Wren's broken Tie Bars, 668; Plan of North-West Quarter of South-East Bastion showing Anchorage of Iron Ties, 669; Elevation of One of Piers showing Position of Injection Holes, 670; Plan of Injection Holes at One Level in a Pier in the Crypt, 671; Lower Bearing Plates Below Whispering Gallery Level, 672; Pin Joints on the New Bell, 673; View of Dome Area showing Steel Framework Structures and Timber Strutting, 674; View of Dome from North-West, 675.
- San Gallo the Younger, Antonio da: Rocca Paolina, Perugia, 442; San Gallo Family Tree, 445; Pope Paul III, 445; Model of Antonio's Design for St. Peter's, 449; The Oratory, Ruentina, Lake of Bolzano, 453, 454; Palazzo Liotte, Rome, 455; Palazzo Tiberio Crispo, Orvieto, 457; Palazzo Sacchetti, Rome, 458; Farnese Palace, Rome, 460; Pozzo di S. Patrizio, Orvieto, 461, 464; Fortifications, 467; A Drawing, by Antonio da San Gallo, 469; Tailpiece, 474.
- Schools of Architecture: South-east-on-Seas: Construction Study, 371; Design Studio, 372; Study of Classic Elements, 372; Bombay: Measured Drawing by V. N. Chingurkar, 393; Indian Composition, by B. D. Mhatre, 393; Time Study, by E. V. Vidwan, 394; Design for a Tomb of a Great Indian Person, by J. K. Metha, 396.
- Science Buildings, The Design of: Western Reserve School of Medicine, 75; Plan, 77; Highgate School: Ground Plan of New Science Buildings, 78; Clifton College, 79; Plan of First Floor Chemical Department, 79; Beaumont College, Windsor, 81; University of Bristol, New Physics Buildings, 82; School of Pathology, Oxford, 83; University of North Wales, Science Departments, 84.
- Stockholm Exhibition, 1930: Main Restaurant, showing construction, 337; Corner of Restaurant and Dancing Hall, 338; Interior of one of the Exhibition Halls, 356.
- Tapper, Walter: Portrait, by Sir William Orpen, 14.
- Thames Valley Preservation Scheme, The: River at Shiplake, looking down stream, 282; Wallingford Bridge, 286; Sonning Bridge, 286; Henley Bridge, 287; Marlow Bridge, 287; Wallingford, 289; Sonning Village, 291; Hardwick and Mapledurham, 292; Prospect from Sinodun Hill, looking North, 293.
- Tropical Agriculture, The Imperial College of, Trinidad: The Imperial College of Tropical Agriculture, Trinidad, 90; View of Model from South-west, 91; Plans, 92, 93, 94.
- Ur, Recent Excavations at: Headpiece, 575; Section of Pit cut down to Virgin Soil through Sand Deposit, 576; Clay Figures from Graves of the Sand Period, 578; Restoration of Ground Plan and Reconstruction of the Nin-gal Temple of Kurigalzu, 585.
- Vereham Abbey: Plan, 49; Reconstruction of West Front, 50; Reconstruction of North Facade, 50; West Front, 51; North Transept, 51; South Facade, 51; Exterior of Apse, 51; Vaulting Shaft at Corner between Nave and North Transept, 52; South Aisle, 52; Chevet, 53; Ambulatory Chapel, 53.
- Washing of Stone Buildings, A Plan for the: British Columbia House, 16; Brompton Oratory, 17; Horse Guards' Parade, 17; Victoria and Albert Museum, 18; "Navigation," Spring Gardens, 19; Burlington House, 19; Brompton Hospital, 20; St. Martin's-in-the-Fields, 21; The Quadrant, Regent Street, 21; Bank in Piccadilly, 21; Grosvenor's Hall, 22.
- Winchester Palace: Engraved View of Winchester Palace, 43; Agreement to take Timber, 44; Wren letter to Parker, 45; Periton, Interpretation of Warrants, 45; Plan, 46; Elevation, 47; Tailpiece, 48.



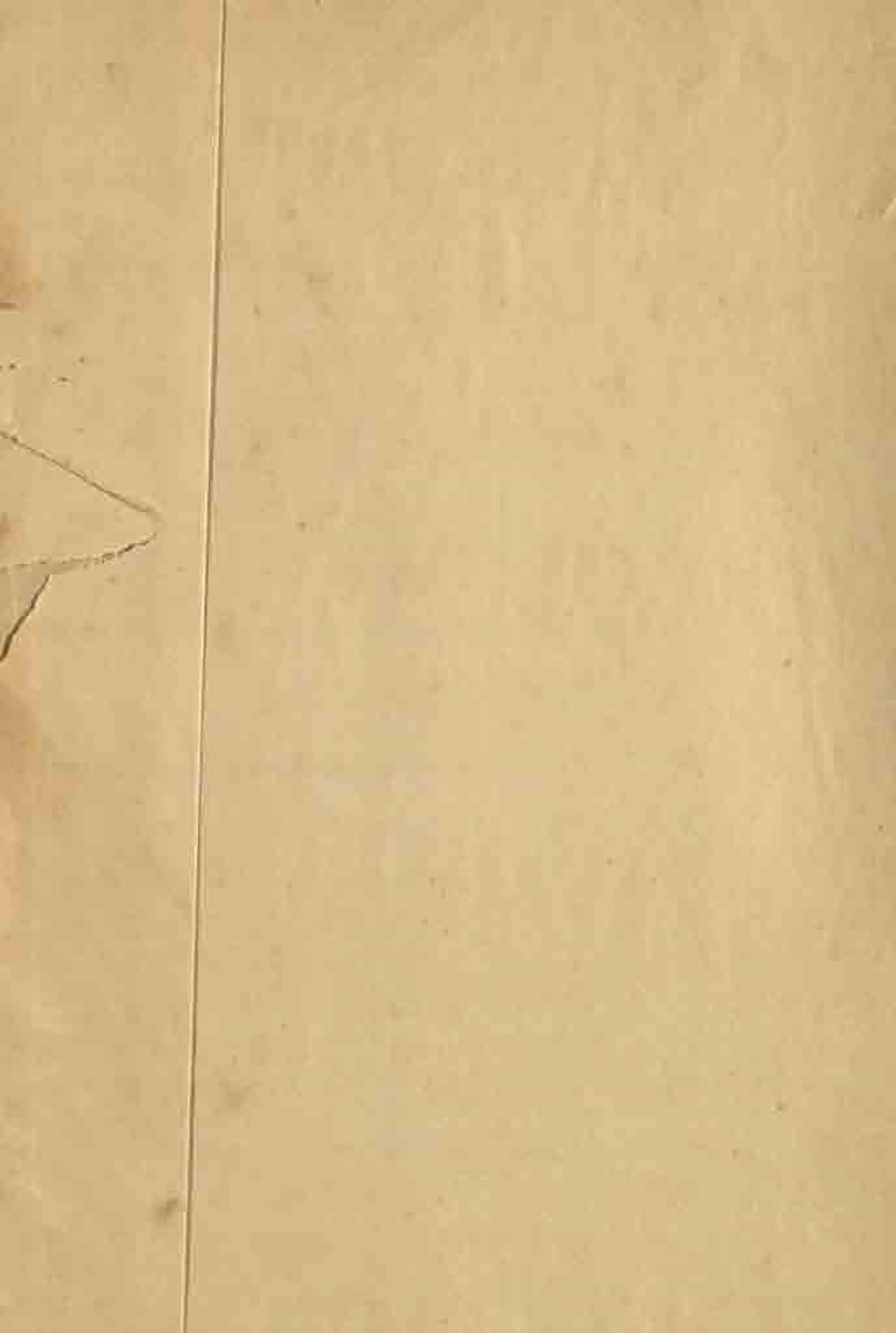


W. H. SMITH & SON LTD.  
SCARBOROUGH ST., LONDON  
S.E.4.

(718) 602

T







N.C.  
12



*"A book that is shut is but a block"*

CENTRAL ARCHAEOLOGICAL LIBRARY  
GOVT. OF INDIA  
Department of Archaeology  
NEW DELHI.

Please help us to keep the book  
clean and moving.

---

S. B. 145. N. 521H1.